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NOVEMBER 17, 1952

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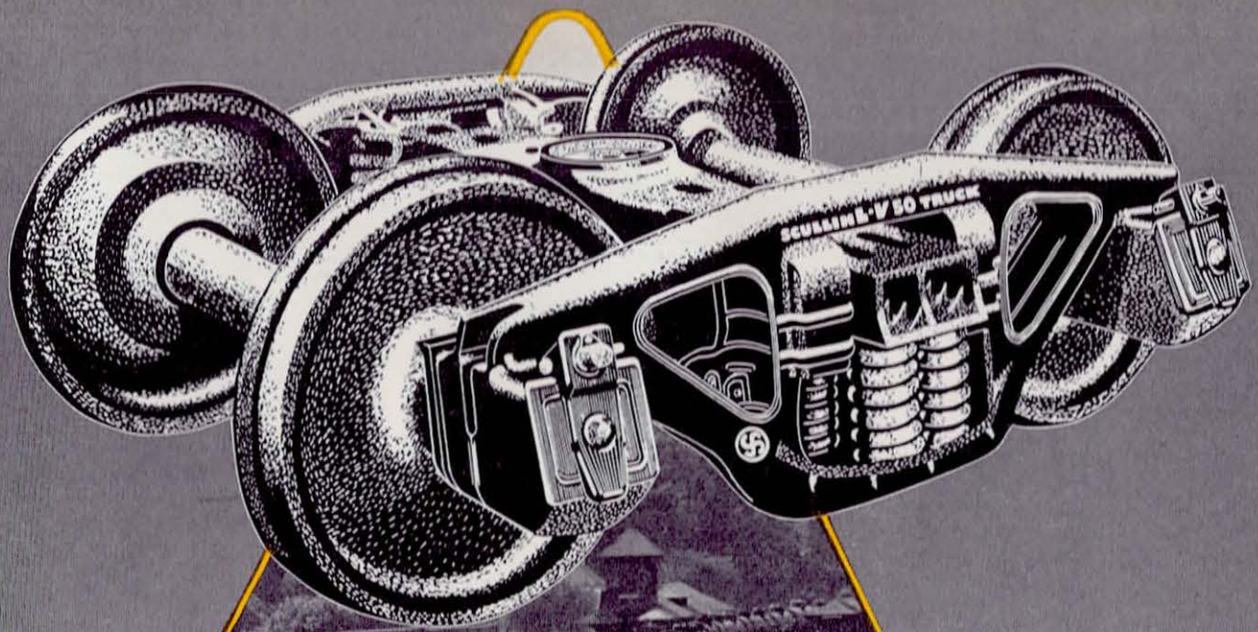

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Vol. 133, No. 20 November 17, 1952

RAILWAY AGE

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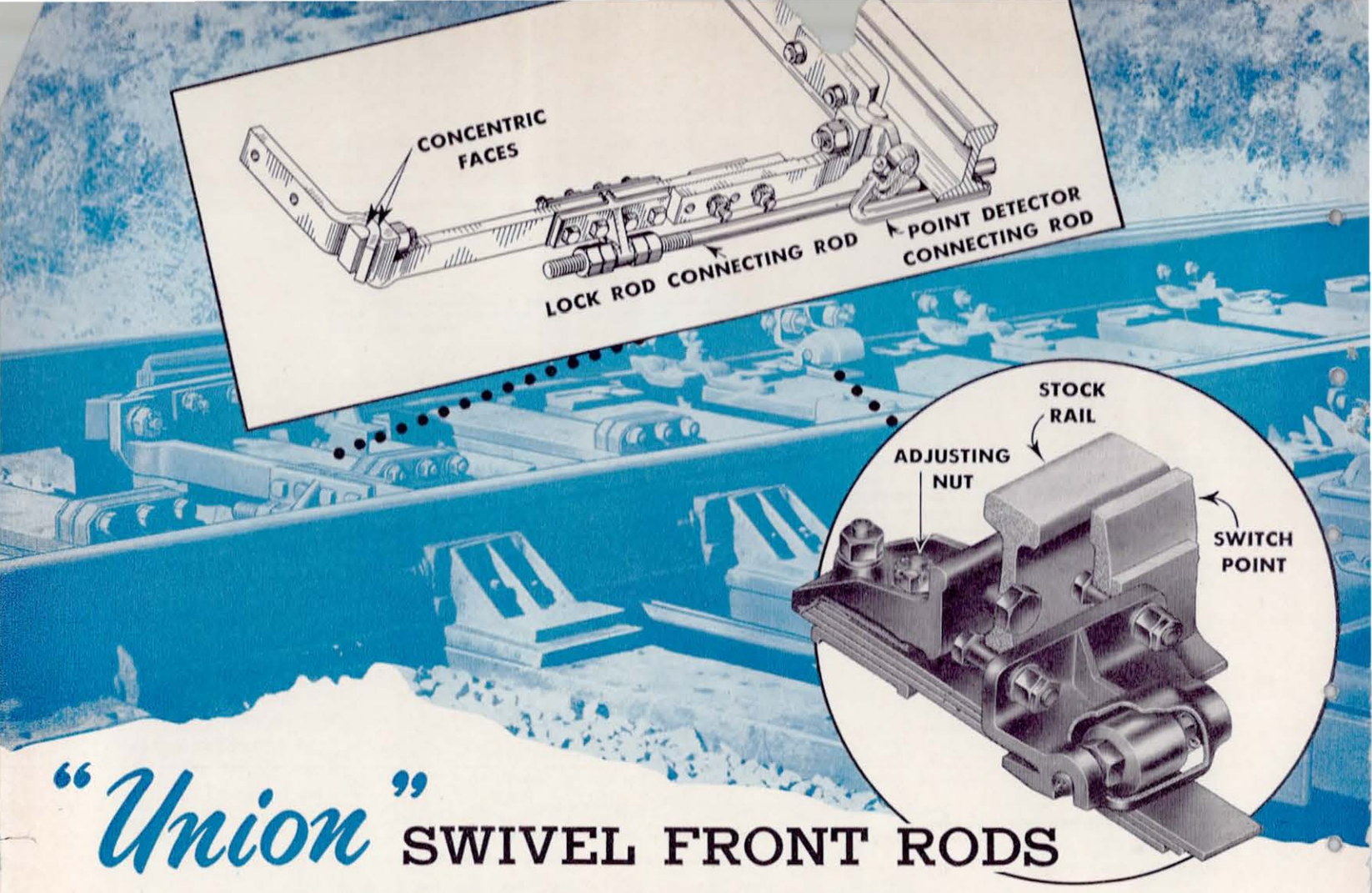

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WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

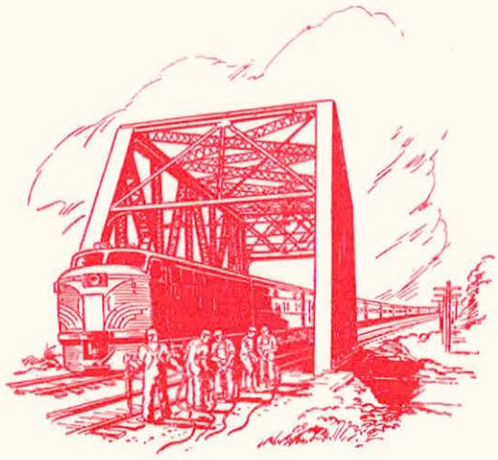
Operating revenues, nine months	
1952	$7,753,138,898
1951	7,620,559,529
Operating expenses, nine months	
1952	$5,972,924,562
1951	6,003,270,343
Taxes, nine months	
1952	$ 912,274,900
1951	859,620,840
Net railway operating income, nine months	
1952	$ 732,335,415
1951	606,459,584
Net income, estimated, nine months	
1952	$ 502,000,000
1951	391,000,000
Average price railroad stocks	
November 10, 1952	64.18
November 13, 1951	52.99
Car loadings, revenue freight	
44 weeks, 1952	32,172,978
44 weeks, 1951	34,660,204
Average daily freight car surplus	
November 8, 1952	3,235
November 10, 1951	2,935
Average daily freight car shortage	
November 8, 1952	9,346
November 10, 1951	9,434
Freight cars delivered	
October 1952	5,437
October 1951	10,082
Freight cars on order	
November 1, 1952	90,708
November 1, 1951	132,792
Freight cars held for repairs	
October 1, 1952	104,283
October 1, 1951	97,176
Average number of railroad employees	
Mid-September 1952	1,233,638
Mid-September 1951	1,286,658

In This Issue . . .

"ONE OF THE MOST IMPORTANT THINGS that has ever happened to the railroads" is the way in which the leading editorial in next week's issue will describe the special committee report on passenger deficits presented to and adopted by the National Association of Railroad and Utilities Commissioners, in its annual convention at Little Rock, Ark., last week. The report, with eight specific recommendations for elimination or substantial reduction of the railroad passenger deficit, is perhaps as comprehensive a study and as valuable a contribution to the solution of that perplexing problem as has ever been made. The committee's conclusions and recommendations are quoted in full, along with supporting excerpts from the report, in the article which begins on page 67. Other activities at the N.A.R.U.C. convention are covered in the news pages.

EXCEPTIONALLY SATISFACTORY RESULTS, particularly for certain types of freight, have been reported by the Western Pacific from its experiments with box cars equipped with the Pullman-Standard Compartmentizer. As a result, 20 additional cars are now being equipped with the load separating device. Improvements in the device and some of the results it has produced are outlined on pages 58 and 59.

MODERNIZATION of the Pennsylvania's Conway yard—mentioned as a probability on this page several months ago—has just been announced by the railroad as part of a three-year, $47-million program of freight-service improvements, designed to provide faster schedules, better service to shippers, increased capacity and more economical operation. The new Conway yard will have 85 tracks and a classification capacity of 8,000 cars a day; with various related facilities it will cost approximately $34 million. The other major phase of the program—details of which are given in the news columns—involves a new $12-million freightcar repair shop, to be located at Hollidaysburg, Pa.



BUILDING FOR THE FUTURE can be done in many ways. One of the more interesting—and one in which many railroads and railroad supply companies, particularly in the West and Southwest, are participating—is "Junior Achievement." What JA is, how it works, and what some railroads have done to help it, is told in the article which starts on page 64.

THE BIG TRUCKERS sort of took it on the chin in the November 4 elections! Out in Oregon (see news pages) their attempt to repeal, by referendum, the state's increased weight-distance tax on long-haul commercial trucks, was rejected by nearly two to one; their proposal for a constitutional "gold-brick" amendment to prohibit use of weight-

WEEK AT A GLANCE

distance taxes was turned down by considerably more than three to one—all this despite what one Oregon newspaper called "a costly campaign designed to confuse the voters . . . filled with half truths and outright misstatements" and using "every means of communication." And in Ohio Democratic Governor Frank J. Lausche, a staunch advocate of the ton-mile tax on trucks, was returned to office by a whopping big majority in the face of an otherwise Republican landslide, despite what an Ohio paper has called "an all-out effort of the truck lobby to beat him." And just as a further indication of the fact that the voters may finally be beginning to understand what transportation subsidies are costing them, Denver voters, for the second time in recent months, rejected bond issues to provide for airport improvements.

In Washington . . .

WHEN THE NEWLY ELECTED CONGRESS convenes in January, the Senate and House Committees on Interstate and Foreign Commerce will both have new chairmen. In the Senate, Republican Charles W. Tobey, of New Hampshire, is expected to succeed Democrat Edwin C. Johnson, of Colorado. In the House, New Jersey Republican Charles A. Wolverton is the probable successor to Ohio Democrat Robert Crosser.

THE I.C.C. INTENDS TO STAND on its own feet and make up its own mind in deciding the controversial Ogden Gateway case, according to a letter written to President Stoddard of the UP by Acting Commission Chairman Lee. The incident, which is perhaps chiefly interesting as indicating the commission's determination to rely on the formal record in cases before it, will be the subject of one of next week's news articles.

ONE OF AMERICA'S senior railroad presidents, I. B. Tiggrett, who forged the 2,900-mile Gulf, Mobile & Ohio from a short, "almost hopeless streak of rust," became chairman of the board of that system on November 7. F. M. Hicks, executive vice-president, was elected to succeed Mr. Tigrett as president. These and other changes in GM&O executive personnel are reported in the news pages.

. . . And Elsewhere

A NOVEL APPROACH to the problem of getting rid of unprofitable passenger trains has been adopted by the Central of New Jersey. Several of the non-paying "clunkers" which the road wants to discontinue or to consolidate with other trains, have each been made the subject of individual, illustrated, briefly worded four-page folders, which are being distributed at weekly intervals to the press and to some 25,000 Jersey Central passengers. A typical illustration from one of these pamphlets, and some of the facts cited in it, are reproduced on page 69.

"IN COUNTLESS WAYS, the railroad industry is one and indivisible. All roads suffer from the same kind of undly restrictive regulation, from the same brand of subsidized competition. . . . Misfortune for any major road would be misfortune for the industry. All the country's roads would be in the same boat if some catastrophe were to bring about socialization."—*From an address to the New York Society of Security Analysts by Carleton W. Meyer, transportation consultant.*

MOTOR CARRIERS are taking "the majority of the graduates" of the University of Tennessee's 280-student transportation department, according to a recent announcement from that institution. Although enrollment in the department "continues to increase," adds the announcement, "the demand for transportation graduates is still much greater than the supply."

HERTZ urges ALL RAILROADS ... give the HIGH BALL to the rail-auto plan!

Is your road doing its part to help sell the Rail-Auto Travel Plan to the public?

For years, Hertz has invested many thousands of advertising dollars to popularize the idea of leaving the family car at home and taking a train for long trips . . . then renting a car from Hertz at the destination. We think the idea makes sense.

And it's evident that promotion of Rail-Auto Travel is producing results. Last year, Rail-Auto travelers covered more than 500 million railroad miles *before* they rented a car! That figure represents a lot of revenue railroads might never have received without this modern travel plan sparked by Hertz.

But it takes constant education to change a habit of the American public. So, active selling and advertising of this travel plan by *all* railroads is needed . . . if this job is to be done right.

Hertz continuously advertises the Rail-Auto Travel Service in top-flight national magazines . . . Life, Saturday Evening Post, Collier's, Holiday, National Geographic, Time, Newsweek, U. S. News & World Report, and other publications. In addition, many thousands of Rail-Auto Travel folders are distributed yearly by Hertz . . . and by sales-minded railroads. Many railroads are promoting the service in their national and local advertisements, in their timetables, ticket office displays and other promotional media.

Just remember . . . private auto long-distance travel is currently estimated at *500 billion* miles every year. The railroad industry's share of this rich potential depends on how aggressively *your road* and *all* roads, promote the Rail-Auto Travel Plan!

Hertz provides car rental service in more than 700 locations . . . in over 500 important cities . . . at every worth-while point served by major railroads. Hertz furnishes rail travelers with new cars in excellent condition at low rates . . . with gas, oil and proper insurance included.

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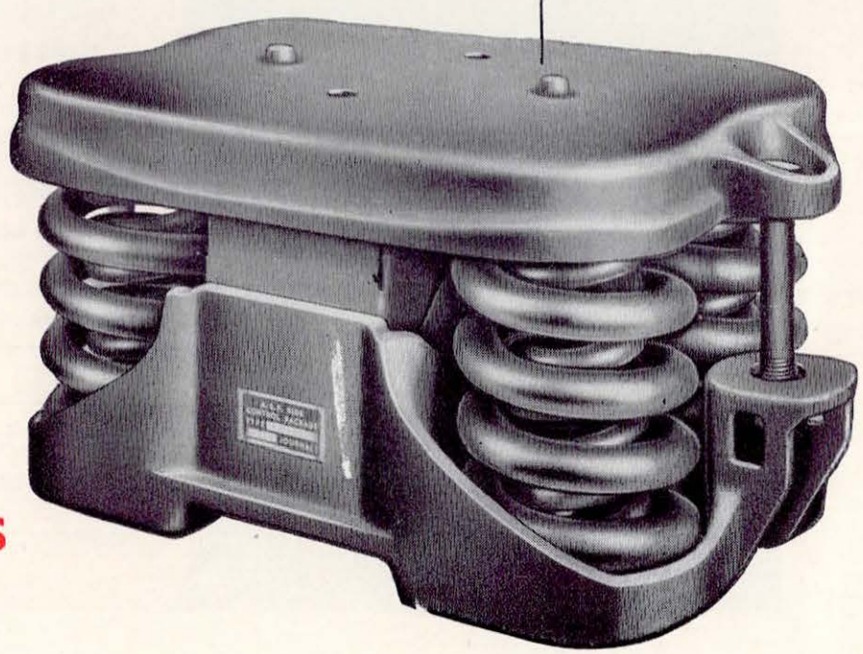
This Package gives 2½ to 3 inches of controlled spring travel, in place of the AAR-standard 1-9/16 to 1⅝ inches. Separate Ride-Control springs provide constant pressure on hardened friction surfaces to control movement in all three directions.

Cost is low—about $160 per car set—but it means big savings. Ride-Control helps protect lading and cut claims. It helps protect rolling stock and cut repair costs. It helps protect roadbed and cut track maintenance. You can't lose! And you can have it now!

Talk it over with your A.S.F. representative and ask him for all the details; or write American Steel Foundries, 400 North Michigan Ave., Chicago 11, Illinois.



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It Has Happened Here, Hammell Warns T.A.A. Group

The express business is an outstanding example of the danger of government encroachment upon a field of private enterprise, A. L. Hammell, president of the Railway Express Agency, told participants in the Transportation Association of America's Intermountain Institute at Denver, Colo., on November 10.

Mr. Hammell spoke at a luncheon of nearly 400 representatives of the transportation industry, its users and investors. Work sessions of the institute, conducted in the morning and afternoon, afforded opportunity of expression for shippers and transportation people throughout the intermountain territory on such subjects as (a) should the long-and-short-haul clause of the fourth section of the Interstate Commerce Act be eliminated?, (b) agricultural products examption, and (c) transportation subsidies. These were topics which the association's National Cooperation Project found to be among the most controversial, and on which the association's Policy Administration Board—administrators of the project—are seeking further regional expression (*Railway Age*, June 2, page 95).

Mr. Hammell, in his luncheon talk, warned that government encroachment frequently comes into being unheralded and often disguised as a blessing. "Unfortunately," he said, "we do not give sufficient attention to government competition when it does not have a direct bearing upon our own type of business or employment. Too often we are ready to accept a program that may temporarily inflate profits in our own field—at the expense of the taxpayer—without making a searching analysis of the underlying facts and potential dangers. To me, *any* encroachment of government in the field of private enterprise, no matter how insignificant it may seem, nor how little immediate effect it may have on the majority of such enterprise, is fraught with danger for all of us."

To emphasize his point, Mr. Hammell went on to describe the growth of the parcel post service and the effect it has had upon the 113-year-old express business. The original purposes of parcel post, when it was organized in 1913, he said, were to (a) provide service for small parcels beyond areas served by express companies, and (b) serve the farmer at his farm, in an effort to halt the then alarming migration to the cities. That it didn't fulfill these promises, he said, is evidenced by the fact that rural parcel post has never attained significant volume and —largely due to changing economic conditions—the farm population has since dropped from 50 per cent of the nation's total to the present 16 per cent.

The ever-widening disparity between express and parcel post rates caused ever-greater diversion of express traffic, he continued, and while the post office department rolled up ever larger losses for the taxpayer, thousands, of express employees lost their jobs. Thus, he concluded, "it can—and did happen here." He warned that "no industry can be immune once government embarks upon a program that might lead to nationalization of an industry almost without our realizing what is happening."

OREGON VOTERS HAND BIG TRUCKERS DOUBLE DEFEAT

Two measures designed to favor long-haul truck operators in the state of Oregon received what may be precedent-setting defeats at the hands of voters in the November 4 election. The issue at stake was Oregon's pioneering weight-distance truck tax.

By a 2-to-1 vote, Oregonians voted to uphold the increased weight-distance tax (and accompanying lighter registration fees) for heavier types of long-distance trucking equipment, as passed by the state legislature in 1951. Voters got their chance when the truckers, opposing the new tax, obtained enough signatures to refer the law to the general ballot.

A resounding 4-to-1 defeat was handed a companion referendum, likewise supported by the long-distance trucking interests, designed to amend the state constitution to prohibit use of the weight-mile tax.

The effects of these two actions by John Q. Public are expected to reach far beyond Oregon state borders. A number of other states are known to be studying the problem of equitable taxation for heavy, long-distance trucks. Some of these states have been deferring possible action on similar weight-distance taxes awaiting the outcome of this action by the Oregon electorate.

Spirited discussion from the floor marked the round-table discussions of the proposed elimination of the long-and-short-haul clause and the question of agricultural products exemption. Representatives of different forms of transport stated their industry's position and then business and traffic groups were allowed to speak from the floor. John V. Lawrence, managing director of the American Trucking Associations, termed the clause "a brake against the trend to a monopoly in transportation," and termed it essential in today's transportation picture. The clause was called the life blood of intermountain industrial development by representatives of numerous civic and industrial groups. Opposition to the project's recommendation that the clause b eeliminated was almost universal among these spokesmen.

"Agreement"

Edgar S. Idol, consultant for the American Trucking Associations, said the abuse of the agricultural products exemptions from regulation had resulted in "bootlegging" of much traffic from regulated truckers as well as the railroads and that this amounted to "some shippers being forced to subsidize others."

A Colorado truck operator, speaking from the floor, said the state trucking association had tried to adopt "this orphan group" on the grounds that many were "barely making gasoline money" and would be better off if they placed themselves under regulation. He added, however, that some such operators were furnishing a service that could not be duplicated by common carriers, i.e., quick handling of perishables in areas remote from common carrier service, and that they should be recognized as being important to certain regional economies.

There was general agreement too, on the principle of transport subsidy. Air line and trucker spokesmen indicated that these industries were "willing to pay their share," though they suggested that the problem of allocating that share was "pretty difficult." But Robert E. Mayer, president of the Pacific American Steamship Association, disagreed. He said that because there was actually an element of subsidy in all transportation—including the railroads ("land grants")—subsidy was just a part of doing business and the project should not make any recommendation to Congress on this question. He suggested that the subject be dropped entirely from the project's report "in the interest of presenting a united, harmonious front to Congress." No action was taken on his suggestion, however.

N.A.R.U.C. Holds 64th Annual Convention

Highlight of the 64th annual convention of the National Association of Railroad and Utilities Commissioners, which was held at Little Rock, Ark., November 10-13, was the submission, discussion, and final adoption in full of the report of the association's Special Committee on Cooperation with the I.C.C. in the Study of the Railroad Passenger Deficit Problem. This report is the subject of an article on pages 67-71 of this issue.

Other reports of special interest to the railroad industry presented at the convention included those of the Committee on Rates of Transportation Agencies, of which Elmer Cart, of North Dakota, was chairman; of the Committee on Engineering, headed by George P. Steinmetz, of Wisconsin; and of the Committee on Service and Facilities of Transportation Agencies, William T. Brooks, of Arizona, chairman.

The first-named committee, after reviewing "the general upward trend in the level of rates for all transportation agencies," commented that "the competitive situation seems to be becoming more intense particularly as between motor carriers and railroads." "This," it added, "places a tremendous problem on administrative agencies, particularly in preventing rate wars through prescription of minimum rates." The same committee, like the passenger deficit committee, strongly urged repeal of federal taxes of 3 per cent on transportation of freight and 15 per cent on transportation of passengers. These taxes, its report said, "are a burden on commerce not warranted by present circumstances . . . that has made common carriers tax collectors for the federal government."

The engineering committee devoted most of its report to a proposed "Program Governing Public Agency Control of Grade Crossings between Railroads and Highways from a Regulatory Standpoint" which it believes "will assist commissions in preparing more uniform and comprehensive railroad-highway crossing protection programs." It also called attention to the so-called "Illinois plan" of providing protection for all crossings in a given area "by closing a number of crossings and providing protection at all those remaining open."

Automatic Protection Effective

The committee also reported a study by R. B. Thomas, chief engineer of the Illinois Commerce Commission, which it said showed that automatic crossing protection is more effective than manual protection, on the basis of a "10-year accident history at crossings where automatic protection replaced manual, with five years' record with each type."

The committee on services reiterated its recommendations of prior years, to the effect that "Congress should immediately require the railroads to (a) consolidate their properties and operations, and (b) along with other classes of carriers, coordinate their operations, and eliminate the tremendous duplications and wastes in transportation so as to afford the public a National Transportation System in fact, as distinguished from theory." The committee was particularly critical of "circuitous routing." At the same time, it advocated "renewed effort to increase the monthly output of new freight cars," and amendment or revision of the Railway Labor Act of 1926 "to avoid a repetition of strikes or threats of strikes by railway labor."

Richard A. Mack, chairman of the Florida Railroad & Public Utilities Commission, and William E. Torkelson, chief counsel of the Public Service Commission of Wisconsin, discussed the subject, Can the Regulatory Process Be Accelerated? They agreed that it could be, but it would require, Mr. Mack said, "adequate funds" for regulatory agencies, plus cooperation between such agencies and the companies they regulate. Mr. Torkelson pointed out that regulatory commissions now have "more freedom" to "streamline" rate-making processes.

"Train X" on Display

The Chesapeake & Ohio's "Train X" was a main attraction at the convention. The single-axle, trailer-type coach (described in *Railway Age*, June 23, page 17) designed by the C&O for its experimental "Train X" was brought to Little Rock at the request of the special committee on passenger-service deficits.

Transport Executives Say "They Can Work Together"

"What is your industry doing to help itself? Are you willing to help each other?"

Before an audience of some 400 people, five transportation executives answered these and other questions from five spokesmen for New England at the second New England Institute of Transportation, held in Boston on November 6, under the auspices of the Transportation Association of America.

"Targets" for the questions were Paul W. Johnston, president, Erie; Jennings Randolph, assistant to president, Capital Airlines, Inc.; Gordon C. Locke, executive secretary, Committee for Pipe Line Companies; H. D. Horton, chairman of the board, Associated Transport, Inc.; and John H. Eisenhart, Jr., secretary-treasurer and general counsel, American Waterways Operators, Inc. Questioners were Harry E. Umphrey, president, Aroostook

Potato Growers, Inc.; E. C. Johnson, chairman of the board, H. A. Johnson Company, representing the New England Council; R. E. Thomas, manager, railroad investments, Keystone Custodian Funds; Erwin D. Canham, editor, Christian Science Monitor; and W. H. Day, manager, transportation department, Boston Chamber of Commerce.

They had already proved their willingness to work together, said the transportation representatives, pointing to the report of the T.A.A's Cooperative Project on National Transportation Policy (*Railway Age*, June 2, page 95).

At the institute's afternoon session, New England transportation representatives, shippers, investors, trade association executives, and college professors analyzed the nation's transportation problem and discussed measures for legislative relief.

Railroad spokesmen emphasized the importance of a recommendation to speed up procedures in general rate-increase cases. Ability to abandon unprofitable lines and passenger services would also enable the railroads to improve services to freight shippers, said Mr. Johnson.

The air industry, Mr. Randolph said, agreed that the ultimate aim in all forms of transport should be that all classes of domestic transport facility users pay user charges sufficient to cover their fair share of the costs of building and maintaining the federal facilities they use. He pointed out, however, that the air industry would expect any user charges to be "across the board" for all other kinds of transport using government facilities. Mr. Locke saw the greatest need in the transportation industry as freedom from excessive government regulation.

J. C. Richdale, chairman, welcomed the group on behalf of the New England Forum of the T.A.A., while George P. Baker, professor of transportation at the Harvard Business School, was moderator of the luncheon panel session.

GM&O ELECTS HICKS TO SUCCEED TIGRETT

A. C. Goodyear, chairman of the board of the Gulf, Mobile & Ohio at New York, has been elected chairman of the executive committee. I. B. Tigrett, president, with headquarters at Mobile, Ala., has been elected chairman of the corporation. F. M. Hicks, executive vice-president at Mobile, has been elected president. G. P. Brock, vice-president and general manager at Mobile, has been elected executive vice-president and general manager. C. B. Whitlow, assistant to president at Jackson, Tenn., has been appointed assistant to chairman of the corporation. F. J. Lott, executive assistant at Mobile, has been appointed assistant to president. B. M. Sheridan, director of publicity and advertising at Mobile, has been appointed assistant vice-president—public relations.

Tobey, Wolverton May Head Commerce Committees

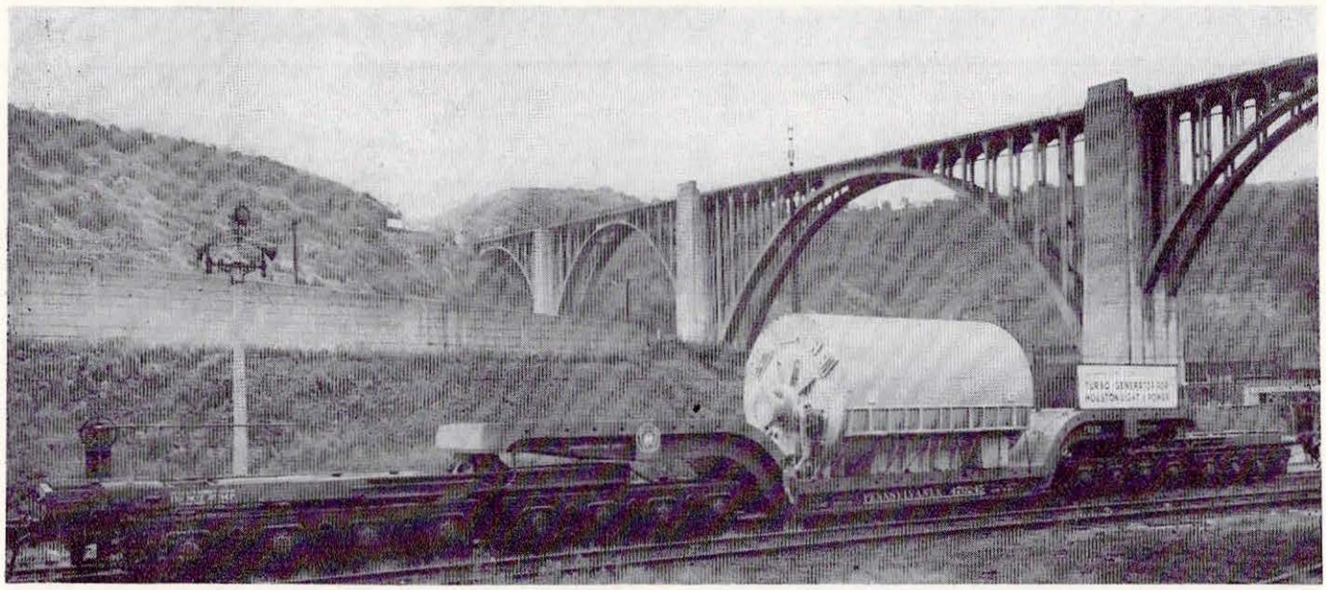
The control of Congress, which the Republican party won in the national elections, is expected to result in the designation of Senator Charles W. Tobey of New Hampshire and Representative Charles A. Wolverton of New Jersey as chairmen, respectively, of the Senate and House committees on interstate and foreign commerce.

They are the ranking Republican members of those committees, chairmanships of which are now held by Democrats—Senator Edwin C. Johnson of Colorado and Representative Robert Crosser of Ohio. Mr. Wolverton was previously chairman of the House committee, during the 1947-48 term of the Republican-controlled 80th Congress.

Two days after the election, on November 6, Senator Tobey made public a report on "Railroad Reorganization," which he has submitted to the Senate committee. And on November 10 he issued an announcement saying that, upon the convening of the New Congress in January, he would request an investigation by the committee of "certain matters surrounding the Boston & Maine securities modification plan."

The report on reorganizations was based on testimony and data supplied to the committee by Interstate Commerce Commissioner Charles D. Mahaffie at hearings on his reappointment which were held last March and June. The hearings were held at Senator Tobey's request, and he was the only committee member present at many of the sessions.

As summarized by Senator Tobey in an accompanying statement, his 32-



THIS 32-WHEEL FLAT CAR, 124 ft. 3 in. long, was built by the Pennsylvania at Altoona, Pa., for just such transportation jobs as this one—shipment of a 90,000-kw. turbo-generator from the East Pittsburgh, Pa., plant of the Westinghouse Electric Corporation to the Houston, Tex., Light & Power Co. The generator is said to be the largest ever shipped completely assembled and ready for installation. The car was described in *Railway Age*, June 16.

page report "analyzes actual and threatened losses to public investors in railroad securities under the forfeiture method of reorganization." The senator added:

"These forfeitures have been decreed by the Interstate Commerce Commission on the basis of the commission's estimates of future rail earnings—estimates which have usually been far outstripped by actual earnings much higher than the commission could foresee. The commission rarely, if ever, overestimates earnings; generally, if not always, it underestimates them. However expert the commission may be in day-to-day railroad problems, it has no means of predicting developments in international and domestic affairs which have become the most important element in determining railroad earnings."

NH to Run New Week-end N. Y. Cape Cod Service

The New Haven inaugurated a new week-end train service between New York and Cape Cod on November 7. Continuance of the new connecting service—which succeeds the through week-end service operated up to the end of October (*Railroad Age*, October 6, page 17)—depends upon the extent of its patronage, C. E. Williams, general passenger traffic manager, said. The train, No. 26, leaves Grand Central Terminal, New York, at 5 p.m. on Fridays and connects at Providence with a train arriving in Hyannis at 10:10 p.m. Departure from Hyannis is at 4:45 p.m. on Sundays, and arrival in New York, via Providence connection, is scheduled for 10:25 p.m.

Meyer Asks "Significant" Passenger Deficit Figures

"Either we should have more complete and meaningful facts, and get a significant figure" as to the railroads' actual passenger-service deficit, "or, if we cannot do this, we should throw out our present confusing and readily misunderstood information," Carleton W. Meyer, transportation consultant, told the New York Society of Security Analysts on November 7.

"As an accountant's method of starting with total expenses and making separations," Mr. Meyer said, the present Interstate Commerce Commission formula for allocating passenger costs "is probably as good as can be devised." Its results, he added, "correctly tag passenger services as a 'sick business.'" But those results, he continued, "approach reality for only three roads—the Pennsylvania, the New York Central and the New Haven. Even there, room exists for difference of opinion as to how nearly they approach reality, in 'cash' terms. For all roads except the 'big three' passenger carriers, the I.C.C. deficit figures are an unknown quantity."

"We are looking," Mr. Meyer declared, "for a practical statement in 'business man's dollars'—dollars you pay or don't pay, depending on whether you do or do not do certain things. We need something a chamber of commerce group will understand, when railroad officers talk with them about local passenger trains." If such "realistic cost figures" are "not acceptable," then, he contended, the I.C.C. should "abolish entirely" its present requirements for separation of passenger and freight expenses, "and no longer require such a separation to be reported."

CPR Asks Change in Rate-Making Structure

A new feature of the Canadian rail freight-rate battle was presented at Ottawa on November 10, when the Canadian Pacific, with the support of other Canadian roads, argued for a change in the rate-making system.

It declared before the Board of Transport Commissioners that the board should determine the net rail investment of the CPR and allow it to earn a "fair return" on that amount. The CPR considers a fair return to be 6½ per cent on an investment base of $1,146,000,000; this would yield rail earnings of $74,000,000, as against $46,600000 now allowed by the board.

The railroad's move has brought a storm of protest from eight of the 10 provinces, which assert it would in-

FREIGHT TRAFFIC MANAGERS from all over the Canadian National system recently assembled in Montreal for a conference presided over by John Pullen, traffic vice-president. Seated, left to right: E. A. Ryder, freight traffic manager, Toronto; W. A. Kember, assistant general freight traffic manager, Montreal; J. M. Parramore, assistant freight traffic manager, Chicago; J. A. Argo, assistant vice-president, Montreal; Mr. Pullen; J. V. Maloney, assistant vice-president, Chicago; G. E. Smith, general freight traffic manager, Montreal; and L. B. Freeman, freight traffic manager, Chicago. Standing, left to right: R. M. McBain, assistant freight traffic manager, Winnipeg, Man.; E. C. Champ, traffic manager, Moncton, N. B.; L. A. Fonger, freight traffic manager, Winnipeg; H. F. Rose, assistant freight traffic manager, Buffalo, N. Y.; W. Hyman, traffic analyst, Montreal; G. M. Brown, assistant to assistant vice-president, Montreal; H. W. Craig, assistant to vice-president, Montreal; R. A. Norris, freight traffic manager (rates), Chicago; G. F. Smith, assistant freight traffic manager, Montreal; C. L. McCoy, freight traffic manager, Montreal; and G. O. Thoresen, assistant freight traffic manager, Detroit.

volve a "disastrous burden" on shippers, in that it would send freight rates up 33 per cent. Counsel for the CPR said that road wanted revenue "relief" through the application and that delay before the board as sought by the provinces would be a denial of "justice" to the railroads.

The first day's procedural argument centered around two points. First, the provincial governments wanted the rate-base, rate-of-return issue split up into different phases, with the board hearing evidence now only on the principle of whether this rate-setting method should be adopted without going into the actual rate-base figures.

The board decided the railways could go ahead and put in all their evidence. But it upheld the provinces on their other contention that there should be an adjournment after the railway evidence to give time for preparation for cross-examination. Hearings will resume some time after the new year, after about a week of railway evidence now. The provinces also will present their evidence early next year.

In another development, the Canadian Manufacturers' Association made public a letter to the board expressing opposition to the system proposed by the railways. It said the board's discretion in setting rates should remain unfettered, so that it would be free in future to accept or discard any method in a particular rate case.

Steel Production Up; Weather Key to Ore Supply

It now appears to be doubtful that Great Lakes shipping, with its assist from the railroads, will be able to attain the goal of moving 75 million tons of ore to the nation's steel mills before the close of navigation. But steel men are anxiously watching the weather to see how closely they will be able to approach that figure. So far, the weather has been cooperative. But freezing weather hampers the handling of ore at the mines and at head-of-the-lakes docks well before it has any direct effect on navigation.

Meanwhile, the United States Steel Corporation has announced a new record in steel production—3,295,761 net tons in October, some 120,000 tons more than the previous (March 1952) record. "This exceeds, by some 300,000 tons, the entire estimated monthly output in Russian steel plants," the announcement said.

The recent coal strike has indirectly boosted the movement of ore to the mills. Many lake vessels returned north empty, thus cutting turnaround times. During the final week in October slightly in excess of three million tons of ore were delivered to mills and railhead docks. This brought the season's total to more than 66 million tons. With good sailing weather, but allowing for slower handling of ore due to freezing, an average move of 2.3 million tons is expected for the remaining three or four weeks of navigation. This could bring the total pretty close to the 75-million-ton goal. But nobody can foretell the weather.

SPACE SUITS and Hopalong Cassidy outfits for small fry may be in for some competition this coming Christmas season, from this junior railroad engineer's outfit. Sponsored by the A. C. Gilbert Company, of New Haven, Conn., manufacturers of toy trains, and made by Sarah Konel, Inc., 132 West 36th street, New York, the suit carries emblems of six major U.S. railroads. It comes in sizes from 3 to 12.

Freight Car Loadings

Loadings of revenue freight in the week ended November 8 totaled 829,198 cars, the Association of American Railroads announced on November 13. This was a decrease of 32,814 cars, or 3.8 per cent, compared with the previous week; an increase of 37,795 cars, or 4.8 per cent, compared with the corresponding week last year; and a decrease of 10,682 cars, or 1.3 per cent, compared with the equivalent 1950 week.

Loadings of revenue freight for the week ended November 1 totaled 862,012 cars; the summmary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, November 1

District	1952	1951	1950
Eastern	144,700	138,828	147,045
Allegheny	168,200	168,637	171,210
Pocahontas	55,418	65,775	64,352
Southern	132,204	136,245	137,034
Northwestern	147,896	122,783	137,564
Central Western	145,358	140,061	138,388
Southwestern	68,236	65,288	67,556
Total Western Districts	361,490	328,132	343,508
Total All Roads	862,012	837,617	863,149
Commodities:			
Grain and grain products	57,462	54,805	58,670
Livestock	15,565	16,110	14,460
Coal	137,418	161,932	153,805
Coke	15,091	16,656	15,865
Forest Products	48,686	45,529	46,575
Ore	92,700	59,624	67,983
Merchandise l.c.l.	74,943	75,601	88,082
Miscellaneous	420,147	407,360	417,709
November 1	862,012	837,617	863,149
October 25	760,741	864,800	887,935
October 18	838,377	886,648	891,230
October 11	842,713	868,683	888,889
October 4	851,866	858,757	863,903
Cumulative total 44 weeks	32,172,978	34,660,204	32,893,965

In Canada.—Carloadings for the 10-day period ended October 31 totaled 139,418 cars, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada: October 31, 1952	139,418	50,869
Cumulative Totals October 31, 1952	3,483,884	1,485,716

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended November 8 were announced by the Association of American Railroads on November 13 as follows:

	Surplus	Shortage
Plain Box	0	5,402
Auto Box	0	172
Total Box	0	5,574
Gondola	0	2,070
Hopper	21	1,255
Covered Hopper	0	139
Stock	359	25
Flat	0	270
Refrigerator	2,569	13
Other	286	0
Total	3,235	9,346

Rails Safest, A.A.R. Shows; Refutes Air Industry Claim

The Association of American Railroads said last week that published claims by the Aircraft Industries Association that travel by domestic scheduled air lines is safer than by railroad are not borne out by official safety reports filed with the Interstate Commerce Commission and the Civil Aeronautics Board.

This applies not only to the particular 12 months singled out by the A.I.A. for comparison, but also for every calendar year since reports on the comparative safety of the two forms of travel became available, the A.A.R. said. It added:

"The A.I.A. has selected a particular period from October 1951 through September 1952 as the basis of its claims that air travel is safer than rail travel. The claim of superior safety is not correct even as to the 12 months selected. The reported fatality rate of domestic scheduled airlines in those 12 months was 0.38 for each 100,000,000 passenger-miles flown. This is approximately three times as high as the rate of 0.13 on the railroads for the same 12 months.

"In every year for which compara-

tive figures are available, rail travel has been from two to 20 times safer than air travel. Official reports to the I.C.C. and the C.A.B. show that the airline fatality rate in the past five years, 1947-1951, was 1.57 per 100,000,000 passenger-miles, or six times the rail rate of 0.26. Averaging the past 10 years, 1942-1951, the airline fatality rate was 1.65, about seven times higher than the rail rate of 0.24 for the same years."

RAILROAD SEEKS PERMIT TO SET UP AIR LINE

The Baltimore & Annapolis, which operates both rail and motor service between Baltimore, Md., and Annapolis, has made a bid to enter air operations.

An application filed with the Civil Aeronautics Board seeks authority to set up scheduled air line service between Washington, D.C., and New York City. The air line would use "the most suitable helicopter aircraft available at the time service is inaugurated."

One segment of the proposed air line would be between Baltimore and Washington, via Annapolis, The other segment would be between Baltimore and New York, via Philadelphia, Pa., and Wilmington, Del.

While the proposed new air line would use helicopters, it would hold itself out to transport "persons, property and mail." The B&A owns no aircraft at the present time.

Another New Freight House Opened by the Santa Fe

For the second time in less than two weeks, the Santa Fe has opened a large new freight house. The first, reported briefly in the November 3 *Railway Age*, was opened on October 28 on Chicago's southwest side. The second—opened on November 10—is located in San Francisco's China basin district at Fourth and Illinois streets.

Like the new Chicago freight house, the San Francisco structure features an under-floor conveyor system for handling platform trucks. The entire building is 695 feet long and contains 36,710 square feet of floor space including a 64 by 140-ft. office area, a 50 by 400-ft. freight room and a 50 by 155-ft. open platform. An innovation is an overhead two-way paper conveyor to handle correspondence between the freight room and the office. It consists of two wide fabric belts which can accommodate waybills, etc., without folding. A large planting area around the building presents an attractive view to neighboring industries.

Railroad MRO Order Relaxed By N.P.A.

The National Production Authority has relaxed portions of its Order M-73 to give railroads more freedom in obtaining maintenance, repair and operating supplies.

One change permits railroads to accept rail and track accessories on a seasonal basis, but maintains inventory limitations by restricting roads to the allotments authorized in the basic order.

"Railroads will now be permitted to accept rail and track accessories in advance of the rail-laying season to the extent that the deliveries accepted are no greater or further in advance than they usually would be in the ordinary course of their operation," the agency said.

Another change in M-73 permits railroads to acquire and use foreign and/or scrap steel without charging it to their allotment.

N.P.A. also redefined the terms "operating supplies" and "installations" and eliminated the prohibition against the use of the DO-U3 rating for the procurement of construction machinery.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

5,437 Freight Cars Delivered in October

Freight-train cars delivered in October for domestic use totaled 5,437, compared with 3,762 in September, the

FOR 70 RUGGED MILES NORTHWARD into its timber "limits" the Spruce Falls Power & Paper Co. operates a heavy-duty, standard-gage railroad from Kapuskasing, Ont., to Smoky Falls. Originally built to carry supplies for construction of a hydroelectric power plant at the falls, the railroad has become a large hauler of pulpwood. The road operates one 660-hp. diesel switcher built by General Electric-Cooper-Bessemer, and two steam locomotives.

American Railway Car Institute and the Association of American Railroads have announced jointly. In October 1951 deliveries included 10,082 cars. New cars ordered in October for domestic use totaled 1,423 and the backlog of cars on order and undelivered on November 1 was 90,708. A breakdown by types of cars delivered and ordered in October, and of cars on order on November 1, appears in the accompanying table.

Type	Ordered Oct. '52	Delivered Oct. '52	On Order & Undelivered Nov. 1, '52
Box—Plain	1	1,166	23,782
Box—Auto	0	0	750
Flat	7	100	3,900
Gondola	26	977	20,946
Hopper	300	1,902	24,946
Covered Hopper	500	288	5,476
Refrigerator	300	360	4,035
Stock	0	231	180
Tank	96	390	6,275
Caboose	10	6	174
Other	183	17	653
TOTAL	1,423	5,437	90,708
Carbuilders	516	2,963	53,820
Railroad Shops	907	2,474	36,888

The **Atlantic Coast Line** has ordered 2,000 roller-bearing-equipped freight cars for delivery in the second and third quarters of 1953. The Bethlehem Steel Company will build 800 50-ton pulpwood cars; and the Pullman-Standard Car Manufacturing Company and the American Car & Foundry Co. each will build 600 70-ton covered hopper cars. Earlier this year the ACL issued inquiries for 100 to 1,000 50-ton pulpwood cars and 100 to 1,500 70-ton cement-phosphate rock cars (*Railway Age*, July 17, page 84).

The **Gulf, Mobile & Ohio** has been authorized by its board of directors to purchase 100 pulpwood cars at a cost of approximately $600,000. The cars will be constructed in company shops.

SUPPLY TRADE

R. D. Hill has been elected executive vice-president and treasurer of the **Taylor-Wharton Iron & Steel Co.**

R. D. Hill

W. E. Vergan, who has been appointed special representative of the railroad department of the Gustin-Bacon Manufacturing Company, with headquarters at Kansas City, Mo. Mr. Vergan recently resigned as superintendent of air equipment and diesel operation for the Missouri-Kansas-Texas, with which road he was associated for 30 years.

Mr. Hill will transfer headquarters from Cincinnati to High Bridge, N.J., where he will be responsible for coordination of all activities and operations at the manganese steel foundry in High Bridge, and the forged steel cylinder and railroad trackwork plant in Easton, Pa. He also will continue to fulfill his former responsibilities as chief financial officer.

C. A. Walmsley has been appointed district manager in charge of the St. Louis car plant of the **American Car & Foundry Co.**, succeeding **T. G. Shipley,** who has retired after more than 40 years of service. Mr. Walmsley,

C. A. Walmsley

who joined ACF in 1951 as a production staff specialist, formerly was works manager for a division of Dresser Industries in Marietta, Ohio, and held the same position for the Cameron Machine Company in Brooklyn.

The **Pyle-National Company** has opened a new district sales office in Milwaukee, at 743 North 4th street. **George R. Adams,** who joined the company in 1941, has been appointed district representative.

John S. Powell has been appointed division sales manager, supervising the Central division of the **Farr Company,** Los Angeles.

Louis T. Barry has returned to the **Electric Service Manufacturing Company,** Philadelphia, as manager of the industrial division, after 17 months' service with the United States Air Forces.

OBITUARY

Gilbert F. Close, former director of relations for the General Steel Castings Corporation, Granite City, Ill., who was at one time confidential secretary to the late President Woodrow Wilson, died in St. Louis on October 25.

CONSTRUCTION

PRR Announces $47 Million Freight Service Betterment

A new $47,000,000 program of freight service improvements, one of the largest of its kind ever undertaken by the Pennsylvania, has been announced by Walter S. Franklin, president. The project is designed to provide faster freight schedules, better service to defense industries, increased capacity, and savings to the PRR through greater efficiency in operations and in car repairs, Mr. Franklin said. He emphasized that expenditures would be provided from the company's own resources and no additional financing is contemplated. It will be a three-year undertaking and will involve extensive improvements and new facilities in western and central Pennsylvania, eastern Ohio, and at Jersey City, N.J.

"The largest single segment of the project will be new freight classification yards and installations for servicing through freight trains at Conway, Pa., on the Ohio river, 22 miles west of Pittsburgh," Mr. Franklin continued. "It will more than triple the classification capacity of the present yard at Conway and by means of the most modern arrangement and mechanization of facilities will speed up operations in the whole Pittsburgh area. The new yard, one of the largest on the system, will make possible the rerouting over easier grades and the speedier movement of much east-west freight, with widespread freight service improvement not only in the Pittsburgh area but generally over the system. The schedules of many freight

runs will be cut from two to 12 hours, with special benefit to freight moving in both directions between St. Louis, Cincinnati, Columbus and the east." The new yard, including track and signal changes in nearby Ohio and around Pittsburgh to make its benefit fully effective and to streamline terminal operations, will cost approximately $34,000,000.

Closely related in the overall improvement project will be construction by the Pennsylvania of what, it is said, will be the largest and most modern freight car repair shop in the country, at Hollidaysburg, Pa., eight miles south of Altoona. It will be operated as part of the road's Altoona Works, and will be known as the Samuel Rea Shop, in honor of Samuel Rea, ninth president of the PRR. It will turn out 50 repaired cars a day, utilizing most modern methods to speed work, Mr. Franklin said. "This location on the road's east-west route, where cars in need of attention can be shopped for repairs and promptly returned to service, will result in greater efficiency and economy in repair operations and consequent better service to shippers. The new shop will cost approximately $12,000,000," he added.

Other segments of the overall freight improvement program will include a new icing station to be provided by the Fruit Growers Express Company at Conway yard, and new icing facilities to be provided by the railroad at Jersey City. Perishable freight will be serviced there and re-icing service at several other points will be minimized.

Modern facilities for feeding and resting livestock in transit will be provided at Conway, replacing older accommodations at Pittsburgh. Ninety carloads of stock will be accommodated at one time at these facilities.

The railroads's reclamation and scrap plant now at Conway will be removed to Hollidayburg, clearing a large area for expansion of freight operations at Conway and achieving substantial savings in handling and hauling costs by locating the reclamation work adjacent to related activities at the new shop.

The new Conway yard well be 3½ miles long and 85 tracks wide at the center. Built to provide for normal traffic growth over many years ahead, it will classify up to 8,000 cars each day on two "humps" equipped with modern automatic braking devices to control car movement and car speed, as well as automatic scales to weigh cars in motion. Little of present yard facilities will be retained except part of the enginehouse, which will be adapted to serve both diesel and steam locomotives.

"The new Conway yard will be larger than our Enola yard near Harrisburg, presently the busiest on the Pennsylvania," Mr. Franklin said. "With Enola in the east, a completely modern and streamlined freight handling facility, and with the new streamlined Conway at Pittsburgh near the geographical center of our system, freight will be moved, classified and distributed in solid trains to and from our terminals with greater speed, efficiency and economy than ever before and with less intermediate handling."

Mr. Franklin said the engineering design for Conway is nearly complete, but actual construction will require about three years. "Preliminary work on the new Samuel Rea car repair shop at Hollidaysburg has begun and we expect to complete it about the middle of 1954. We will employ up to 1,500 men and the shop will be half a mile long, 54 feet high, varying in width from 180 to 270 feet. It will have three repair lines—supported by modern fabricating, storage and materials handling facilities—running the length of the building. As freight cars move in to one end of the plant, worn and damaged parts will be scrapped or repaired for reuse. Cars will be repaired progressively, sandblasted, painted and dried by modern infrared lamps in the concluding operation. Cars entering the shop in the morning will be ready for service again the same day."

In announcing the new project for freight-service improvement, Mr. Franklin said the road's diesel locomotive and car equipment program is now nearly complete. He recalled also recent elimination of restrictive tunnels in Ohio and their replacement by open cuts as major parts of the Pennsylvania's overall postwar improvement program designed to prepare the railroad for the emergencies of war, as well as to improve its peacetime ability to serve business and industry and the defense effort.

FINANCIAL

New Securities

Application has been filed with the I.C.C. by:

BALTIMORE & OHIO.—To assume liability for $5,505,000 of series FF equipment trust certificates, the first installment of a proposed $10,005,000 issue. The road plans to acquire 60 diesel-electric locomotive units, 11 sleeping cars and three Budd cars at an estimated total cost of $12,510,000.

	Description and Builder	Estimated Unit Cost
2	1,500-hp. freight locomotive "A" units (Electro-Motive Division, General Motors Corporation)	$179,269
16	1,500-hp. freight locomotive "A" units (Electro-Motive)	175,020
9	1,500-hp. freight locomotive "B" units (Electro-Motive)	174,988
13	1,500-hp. road-switchers (Electro-Motive)	152,550
6	1,600-hp. freight locomotive "A" units (American Locomotive-General Electric Companies)	178,551
4	1,600-hp. freight locomotive "B" units (Alco-G.E.)	160,141
3	1,600-hp. freight locomotive "A" units (Baldwin-Lima-Hamilton Corporation)	171,040
6	1,600-hp. freight locomotive "B" units (b-L-H)	158,461
1	1,600-hp. road-switcher (B-L-H)	151,647
11	Type 16 duplex-roomette, 4 double-bedroom sleeping cars (Name of builder to be announced later)	181,820
3	RDC-1 Budd rail cars (The Budd Company)	155,000

The certificates, to be dated December 1, would mature in 15 annual installments. They would be sold by competitive bidding, with the interest rate to be set by such bids.

UNION OF PITTSBURGH.—To issue a $4,900,000 demand promissory note to the Bessemer & Lake Erie to pay the cost of acquiring from B&LE the yards, sidings and main line—trackage between North Bessemer, Pa., and East Pittsburgh. The note, with interest at 3¼ per cent, would be dated December 1, 1952.

Dividends Declared

CATAWISSA.—5% 1st preferred, 75¢, semiannual; 5% 2nd preferred, 75¢, semiannual; both payable November 21 to holders of record November 7.

MAINE CENTRAL.—5% preferred, $2.50, accumulated, payable December 1 to holders of record November 15.

NORFOLK SOUTHERN.—(stock dividend) one share for each held, payable November 20, to holders of record November 10.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable December 1 to holders of record November 20.

WEST JERSEY & SEASHORE.—special guaranteed, $1.50, semiannual, payable December 1 to holders of record November 14.

WESTERN OF ALABAMA.—$4.50, payable December 17 to holders of record December 5.

Security Price Averages

	Nov. 10	Prev. Week	Last Year
Average price of 20 representative railway tsocks	64.18	62.49	52.99
Average price of 20 representative railway bonds	93.22	92.55	91.37

RAILWAY OFFICERS

EXECUTIVE

The office of chairman of the board of the MISSOURI-KANSAS-TEXAS has been abolished and all chief executive functions have been assigned to the president, **Donald V. Fraser. J. T.**

J. T. Mahaney

Mahaney, vice-president—accounting and finance at St. Louis, has been appointed to the newly created position of executive vice-president. Mr. Mahaney was born on July 4, 1892, at Windsor, Mo., and entered railroad service in 1910 as a clerk in the ac-

(*Continued on page* 72)

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF SEPTEMBER AND NINE MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues				Operating Expenses												Operating ratio		Net from railway operation	Railway tax accruals	Net railway operating income	
			Freight	Pass.	Total (inc. misc.)		Maint. Way and Structures		Deprec. and Retirements	Maint. Equipment		Deprec. and Retirements	Traffic	Transportation	Total									
					1952	1951	Total 1952	Total 1951		Total 1952	Total 1951				1952	1951			1952	1951			1952	1951
Akron, Canton & Youngstown	Sept.	171	$503	....	$518	$499	$88	$68	$6	$55	$52	$15	$37	$136	$350	$337	67.5	67.5	$168	$51	$95	$61
	9 mos.	171	4,038	....	4,142	4,265	690	626	59	489	430	140	327	1,219	3,008	2,894	72.6	67.8	1,134	411	559	498
Atchison, Topeka & Santa Fe	Sept.	13,072	40,937	$4,438	50,015	41,416	7,368	6,851	802	8,523	7,113	1,723	1,105	14,981	34,092	32,225	68.2	77.8	15,924	10,768	5,290	4,688
	9 mos.	13,072	356,995	44,618	442,029	411,287	64,300	69,290	6,374	80,841	80,835	15,109	10,212	139,051	313,316	317,753	70.9	77.3	128,713	74,773	52,032	37,460
Atlanta & St. Andrews Bay	Sept.	82	289	1	297	274	42	33	2	26	17	4	10	52	148	131	49.6	47.8	150	75	45	47
	9 mos.	82	2,622	15	2,706	2,674	331	304	24	211	182	37	82	559	1,328	1,239	49.1	46.3	1,378	710	423	428
Atlanta & West Point	Sept.	93	285	40	376	339	52	42	5	66	59	11	15	174	331	294	88.2	86.6	44	27	....	6
	9 mos.	93	2,519	436	3,396	3,335	419	424	47	542	508	102	135	1,464	2,779	2,764	81.8	82.9	617	351	137	94
Western of Alabama	Sept.	133	324	38	403	332	48	36	7	67	64	15	15	142	295	270	73.2	81.1	108	57	51	23
	9 mos.	133	2,693	419	3,478	3,390	442	469	62	615	569	125	140	1,281	2,682	2,654	77.1	78.3	796	446	352	252
Atlantic & Danville	Sept.	205	163	....	166	150	34	37	2	20	14	5	12	55	131	129	79.1	85.6	35	10	5	2
	9 mos.	295	1,405	....	1,427	1,315	298	267	17	123	89	43	103	470	1,099	1,033	77.0	78.6	328	89	65	58
Atlantic Coast Line	Sept.	5,471	9,864	1,193	11,958	11,480	2,897	1,620	144	3,416	2,549	541	355	4,444	11,672	9,365	97.6	81.6	286	Cr 250	567	550
	9 mos.	5,472	101,923	16,887	128,070	117,424	22,717	23,281	1,134	26,445	22,894	4,766	3,238	43,909	101,841	98,792	79.5	84.1	26,230	14,950	8,897	5,339
Charleston & Western Carolina	Sept.	343	458	1	487	496	112	143	4	114	93	42	17	155	412	419	84.5	84.6	75	40	51	37
	9 mos.	343	4,712	26	4,894	4,855	1,228	1,243	38	1,017	728	360	159	1,560	4,083	3,743	83.4	77.1	811	365	438	503
Baltimore & Ohio	Sept.	6,187	35,595	1,810	40,108	38,663	5,119	5,173	399	7,601	8,386	983	847	14,750	29,778	30,477	74.2	78.8	10,330	4,745	4,374	3,634
	9 mos.	6,187	285,550	18,507	326,090	334,388	42,534	44,167	3,669	67,377	74,224	8,772	7,768	129,416	260,671	273,226	79.9	81.7	65,419	24,145	32,484	27,354
Staten Island Rapid Transit	Sept.	29	244	54	301	304	62	39	12	27	30	2	2	156	284	254	94.4	83.4	17	37	—45	—5
	9 mos.	29	2,287	477	2,794	2,623	509	440	98	284	332	17	14	1,359	2,454	2,383	87.8	90.8	340	328	—209	—224
Bangor & Aroostook	Sept.	602	650	35	725	569	250	205	18	227	204	75	15	228	781	688	107.7	120.8	—56	6	29	—14
	9 mos.	602	9,089	336	9,831	8,029	2,220	1,716	151	2,074	1,601	637	174	2,732	7,736	6,235	78.7	77.7	2,095	1,163	1,211	874
Bessemer & Lake Erie	Sept.	212	3,430	1	3,453	2,883	262	166	21	646	1,078	126	22	563	1,609	1,924	46.6	66.8	1,843	1,043	1,001	621
	9 mos.	212	18,486	6	18,680	22,271	1,821	1,810	178	5,213	6,589	966	177	4,042	12,137	14,099	65.0	63.3	6,543	4,233	4,123	4,295
Boston & Maine	Sept.	1,701	5,595	951	7,475	6,750	1,334	1,164	203	1,158	1,006	181	115	3,041	5,974	5,568	79.9	82.5	1,500	627	552	345
	9 mos.	1,701	48,844	9,109	65,617	65,171	12,166	11,535	1,683	10,244	10,427	1,568	1,028	28,061	54,454	54,053	83.0	82.9	11,163	5,447	2,897	2,627
Cambria & Indiana	Sept.	35	147	....	147	123	27	18	1	92	86	22	....	26	156	134	106.2	109.5	—9	71	58	42
	9 mos.	35	1,167	....	1,168	1,188	168	116	15	723	748	178	1	199	1,161	1,164	99.4	98.0	7	603	483	494
Canadian Pacific Lines in Maine	Sept.	234	286	64	385	336	106	116	5	106	79	13	8	170	404	366	105.0	109.0	—19	27	—67	—96
	9 mos.	234	4,329	479	5,090	4,805	1,094	954	46	894	767	84	71	2,041	4,224	3,709	83.0	77.2	867	258	45	356
Canadian Pacific Lines in Vermont	Sept.	90	178	25	224	236	69	59	4	29	30	....	7	116	229	214	102.4	90.8	—5	13	—70	—48
	9 mos.	90	1,694	134	2,008	2,029	617	482	34	271	286	2	59	1,078	2,099	1,954	104.5	96.3	—91	117	—689	—533
Central of Georgia	Sept.	1,786	3,029	166	3,453	3,112	565	439	45	580	478	117	128	1,396	2,849	2,633	82.5	84.6	605	214	365	223
	9 mos.	1,786	27,299	1,997	32,231	31,751	5,316	5,618	403	5,455	5,301	950	1,176	13,533	27,251	27,838	84.5	87.7	4,980	2,443	2,123	1,120
Central of New Jersey	Sept.	411	3,159	491	3,975	3,563	551	534	72	590	577	74	56	1,711	3,071	3,071	77.3	86.2	904	392	90	—259
	9 mos.	411	25,631	4,358	32,691	32,363	4,510	4,430	657	5,467	5,556	698	522	16,151	28,150	28,695	86.1	88.7	4,542	3,621	—2,489	—3,115
Central of Pennsylvania	Sept.	207	1,705	4	1,762	1,620	262	157	16	454	358	76	24	455	1,235	1,057	70.1	65.2	527	330	481	642
	9 mos.	207	14,367	48	14,876	14,345	1,753	1,519	130	3,318	3,412	679	229	4,242	9,918	10,091	66.7	70.3	4,958	1,406	5,990	5,985
Central Vermont	Sept.	422	879	67	1,017	919	151	196	16	98	132	12	15	391	698	771	68.6	83.9	319	44	215	33
	9 mos.	422	7,075	612	8,290	8,629	1,593	1,646	150	1,340	1,422	112	140	3,698	7,157	7,147	86.3	82.8	1,133	398	213	557
Chesapeake & Ohio	Sept.	5,116	30,353	647	32,393	33,577	3,847	3,893	386	5,774	5,746	1,423	621	9,049	20,559	21,353	63.5	63.6	11,833	5,637	6,262	5,734
	9 mos.	5,116	248,184	6,674	267,710	270,716	37,004	35,800	3,190	54,056	51,323	12,768	5,633	84,223	192,288	192,510	71.8	71.1	75,422	38,060	40,604	36,098
Chicago & Eastern Illinois	Sept.	868	2,489	245	3,033	2,695	369	392	25	485	384	123	119	1,093	2,229	2,083	73.5	77.3	804	272	429	305
	9 mos.	868	20,490	2,412	25,640	24,682	3,299	3,448	261	4,060	3,530	1,054	1,057	9,457	19,418	18,724	75.7	75.9	6,222	2,171	3,105	2,705
Chicago & Illinois Midland	Sept.	130	599	....	616	724	45	106	7	85	86	20	28	171	367	484	59.6	66.9	249	126	103	—194
	9 mos.	130	4,781	2	4,940	6,884	535	956	66	1,217	1,421	187	255	1,724	4,100	4,925	83.0	71.5	840	455	149	640
Chicago & North Western	Sept.	7,897	16,090	1,764	19,774	17,825	2,876	2,982	362	3,016	2,859	766	337	8,097	15,152	14,854	76.6	83.3	4,622	1,070	2,828	1,344
	9 mos.	7,907	115,772	17,188	150,223	149,983	24,469	24,313	3,079	28,352	28,654	6,693	3,139	70,182	133,759	134,269	89.0	89.5	16,463	9,573	2,423	2,409
Chicago, Burlington & Quincy	Sept.	8,807	20,617	1,712	24,672	21,687	3,914	4,227	399	3,324	3,274	703	445	8,384	16,879	16,523	68.4	76.2	7,793	4,237	3,024	1,887
	9 mos.	8,810	159,492	15,102	194,215	194,612	30,312	30,916	4,006	31,021	29,317	6,268	4,205	69,344	142,215	140,899	73.2	72.4	52,000	28,481	19,883	20,614
Chicago Great Western	Sept.	1,474	2,889	8	3,100	2,750	511	535	43	400	475	119	109	1,016	2,168	2,070	69.9	75.3	932	341	293	235
	9 mos.	1,474	24,365	156	26,185	25,256	4,385	4,430	382	3,500	3,827	1,068	945	8,565	18,394	18,391	70.3	72.8	7,791	2,751	2,656	2,154
Chicago, Indianapolis & Louisville	Sept.	541	1,752	55	1,925	1,722	323	317	19	260	275	64	81	614	1,370	1,415	71.2	82.2	555	230	206	92
	9 mos.	541	14,552	601	16,190	15,656	2,891	2,752	168	2,466	2,528	572	791	5,614	12,625	12,602	78.0	80.5	3,565	1,410	1,225	1,005
Chicago, Milw., St. Paul & Pacific	Sept.	10,671	21,223	1,427	25,079	23,539	3,578	3,158	374	4,406	4,139	853	438	9,172	18,620	18,124	74.2	77.0	6,459	3,288	2,411	1,922
	9 mos.	10,671	163,899	14,463	198,803	194,130	30,706	29,059	3,454	40,714	39,227	7,959	4,275	81,979	167,092	166,392	84.0	85.7	31,711	16,351	10,280	7,393
Chicago, Rock Island & Pacific	Sept.	7,916	14,258	1,605	17,346	15,044	2,462	2,775	245	2,896	2,416	525	481	6,012	12,583	12,508	72.5	83.1	4,764	2,112	2,138	791
	9 mos.	7,916	128,776	15,498	158,245	145,661	20,708	22,174	2,192	25,659	23,047	4,504	4,383	57,161	115,140	114,484	72.8	78.6	43,105	19,047	17,899	10,221
Chicago, St. Paul, Minn. & Omaha	Sept.	1,617	2,653	180	3,088	3,166	455	457	42	410	384	87	62	1,422	2,470	2,524	80.0	79.7	618	181	180	178
	9 mos.	1,617	21,084	1,703	25,087	24,727	4,018	4,041	406	3,764	3,831	792	584	12,662	22,183	22,935	88.4	92.8	2,904	1,629	—687	1,521
Clinchfield	Sept.	317	2,036	1	2,046	1,878	428	218	20	350	283	80	43	395	1,251	1,004	61.1	53.5	795	227	765	842
	9 mos.	317	17,827	12	17,933	17,501	2,722	2,371	168	3,017	2,838	728	376	3,882	10,320	9,792	57.6	55.9	7,613	1,952	6,838	7,285

REVENUES AND EXPENSES OF RAILWAYS

*(Dollar figures are stated in thousands; i.e., with last three digits **omitted**)*

MONTH OF SEPTEMBER AND NINE MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	1951	Operating Expenses: Maint. Way and Structures: Total 1952	1951	Deprec. and Retirements	Maint. Equipment: Total 1952	1951	Deprec. and Retirements	Traffic	Transportation	Total 1952	1951	Operating ratio 1952	1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	1951
Colorado & Southern	Sept.	734	1,302	103	1,538	1,428	164	181	17	198	172	31	29	533	980	997	63.7	69.8	558	260	269	—104
	9 mos.	736	9,635	755	11,551	11,726	1,359	1,522	167	1,797	1,785	305	257	4,204	8,120	8,510	70.3	72.6	3,431	1,884	1,439	741
Ft. Worth & Denver	Sept.	1,038	1,536	160	1,854	1,697	251	247	32	246	190	28	49	673	1,316	1,272	71.0	74.9	537	189	242	103
	9 mos.	1,038	14,355	1,487	17,291	15,841	2,602	2,367	288	2,202	2,163	275	495	6,302	12,476	12,026	72.2	75.9	4,815	1,671	2,151	1,397
Colorado & Wyoming	Sept.	40	170	....	280	290	15	30	2	47	30	11	1	107	187	184	66.6	63.6	94	47	44	8
	9 mos.	40	1,133	....	2,020	2,481	179	484	23	294	249	91	11	790	1,368	1,908	67.6	76.9	653	313	233	213
Columbus & Greenville	Sept.	168	195	....	203	147	28	40	4	13	28	6	4	54	116	137	56.9	93.5	87	59	34	3
	9 mos.	168	1,309	....	1,365	1,486	264	396	33	240	274	53	37	439	1,141	1,326	83.6	89.2	224	220	77	40
Delaware & Hudson	Sept.	793	4,852	204	5,213	4,548	756	680	143	930	1,005	159	81	1,623	3,598	3,755	69.0	81.9	1,616	827	804	324
	9 mos.	793	39,525	1,591	42,592	43,776	6,334	6,034	750	8,537	9,031	1,301	739	16,010	33,463	34,223	78.6	78.2	9,130	4,700	4,795	4,469
Delaware, Lackawanna & Western	Sept.	962	6,548	793	8,116	7,135	866	805	139	1,322	1,312	301	163	3,220	5,830	5,726	71.8	80.2	2,286	1,307	1,083	737
	9 mos.	963	54,567	7,397	68,700	65,731	7,663	7,437	1,210	12,749	12,311	2,663	1,483	29,561	53,885	53,707	78.4	81.7	14,815	7,937	7,271	5,177
Denver & Rio Grande Western	Sept.	2,333	7,252	351	7,870	7,225	955	850	104	1,111	1,088	252	167	2,431	4,968	4,550	63.1	63.0	2,903	1,480	1,270	1,226
	9 mos.	2,333	53,726	2,691	58,614	55,654	7,888	7,535	818	10,104	9,679	2,115	1,554	19,269	41,432	39,150	70.7	70.4	17,182	9,444	7,414	7,824
Detroit & Mackinac	Sept.	232	164	....	168	216	43	75	2	19	20	9	4	35	112	147	66.8	42.5	56	31	31	14
	9 mos.	232	1,457	2	1,495	1,888	387	435	25	186	187	79	38	341	1,047	1,077	70.1	57.0	447	255	216	289
Detroit & Toledo Shore Line	Sept.	50	621	....	638	605	79	73	3	53	58	16	14	176	334	348	52.3	57.6	304	128	88	61
	9 mos.	50	5,492	....	5,606	5,669	690	650	29	538	529	160	127	1,706	3,178	3,277	56.7	57.8	2,428	906	743	616
Detroit, Toledo & Ironton	Sept.	464	1,421	....	1,489	1,407	222	202	22	250	237	70	26	374	918	897	61.6	63.7	571	293	258	202
	9 mos.	464	12,339	4	12,977	14,085	1,794	1,892	222	2,906	2,248	608	251	3,532	8,973	8,657	69.1	61.5	4,004	2,105	1,723	2,299
Duluth, Missabe & Iron Range	Sept.	569	7,615	1	8,896	7,623	690	545	62	675	748	96	9	2,348	3,881	3,526	43.6	46.2	5,015	2,943	2,066	1,254
	9 mos.	568	29,476	10	34,362	44,548	5,684	5,543	597	5,751	6,365	806	82	11,877	24,607	27,268	71.6	61.2	9,755	6,038	3,662	5,414
Duluth, South Shore & Atlantic	Sept.	539	753	8	797	618	189	123	9	139	164	21	23	276	645	582	80.9	94.3	152	36	45	—30
	9 mos.	539	5,499	66	5,872	6,097	1,208	1,141	79	1,245	1,126	180	213	2,175	5,010	5,047	85.3	82.8	862	265	317	438
Duluth, Winnipeg & Pacific	Sept.	175	411	1	419	388	99	84	4	86	82	2	5	177	373	345	89.0	88.8	46	34	—47	—37
	9 mos.	175	4,487	10	4,554	3,816	768	669	38	704	631	19	47	1,975	3,557	3,032	78.1	79.4	996	345	85	60
Elgin, Joliet & Eastern	Sept.	236	3,705	....	4,617	4,563	300	380	36	724	583	93	33	1,640	2,849	2,782	61.7	61.0	1,768	701	427	406
	9 mos.	236	27,040	....	34,023	40,822	3,004	3,840	276	5,904	5,794	899	300	12,766	23,315	25,850	68.5	63.3	10,708	4,118	2,160	3,295
Erie	Sept.	2,242	13,845	597	15,787	14,588	2,198	2,120	311	2,031	2,057	479	346	6,209	11,410	11,019	72.3	75.5	4,377	1,855	1,923	1,795
	9 mos.	2,242	112,620	5,702	129,005	132,179	18,183	17,860	2,138	20,049	20,182	4,220	3,159	53,231	100,348	101,857	77.8	77.1	28,657	12,417	12,352	13,115
Florida East Coast	Sept.	571	1,522	313	1,994	1,581	311	292	42	538	400	98	77	791	1,862	1,669	93.4	105.5	132	Cr 105	160	—319
	9 mos.	571	17,752	5,953	26,164	22,366	3,217	3,064	371	4,496	3,969	682	666	9,492	19,542	17,955	74.7	80.3	6,622	1,535	3,643	1,701
Georgia Railroad	Sept.	323	704	34	801	775	129	100	9	131	125	27	34	335	663	611	82.7	78.9	138	37	117	136
	9 mos.	323	6,368	329	7,278	7,179	1,051	1,058	78	1,155	1,104	239	300	3,030	5,856	5,627	80.5	78.4	1,422	350	1,247	1,298
Georgia & Florida	Sept.	359	293	....	300	237	94	74	4	40	33	7	21	105	277	224	92.1	94.7	24	21	—22	—20
	9 mos.	359	2,795	....	2,834	2,631	808	724	32	331	298	67	174	857	2,309	2,119	81.5	80.5	525	172	123	164
Grand Trunk Western	Sept.	952	4,159	223	4,709	4,647	793	775	51	908	780	90	72	2,067	4,026	3,796	85.5	81.7	683	321	40	253
	9 mos.	952	36,196	1,981	41,241	42,779	6,766	6,687	451	7,527	7,888	817	661	18,784	35,293	35,450	85.6	82.9	5,948	2,738	675	2,717
Can. Natl. Lines in New Engl.	Sept.	172	130	9	161	244	98	77	9	119	44	....	3	114	353	273	219.3	111.7	—192	24	—257	—100
	9 mos.	172	1,515	87	1,962	2,114	670	539	81	635	436	1	24	1,239	2,743	2,365	139.8	111.9	—781	212	—1,375	—841
Great Northern	Sept.	8,314	26,783	1,099	30,066	24,131	3,794	3,455	454	3,917	3,392	801	357	7,720	16,579	15,473	55.1	64.1	13,487	7,138	5,762	3,708
	9 mos.	8,314	163,789	10,952	188,977	182,560	33,646	32,916	2,912	33,431	30,842	5,794	3,493	64,001	141,910	138,525	75.1	75.9	47,067	25,587	17,842	15,214
Green Bay & Western	Sept.	224	282	....	291	307	60	114	4	37	51	14	18	79	209	284	71.7	92.5	82	38	20	1
	9 mos.	224	2,605	....	2,681	3,044	634	867	47	346	382	128	178	766	2,063	2,338	76.9	76.8	619	325	130	302
Gulf, Mobile & Ohio	Sept.	2,766	6,929	363	7,764	6,948	1,048	1,049	81	1,350	1,413	246	260	2,081	5,072	5,109	65.3	73.5	2,692	1,297	1,014	720
	9 mos.	2,803	59,721	3,686	67,786	64,079	10,693	10,624	817	11,925	12,109	2,174	2,324	19,433	47,471	47,559	70.0	74.2	20,315	9,528	7,809	6,326
Illinois Central	Sept.	6,539	21,709	1,838	25,923	23,658	4,011	3,879	343	4,513	4,052	755	473	8,700	18,726	18,029	72.2	76.2	7,197	806	5,945	2,130
	9 mos.	6,539	182,377	17,041	221,471	214,188	35,076	35,533	3,232	37,076	37,712	6,624	4,412	79,860	165,591	167,237	74.8	78.1	55,880	28,386	23,632	20,434
Illinois Terminal	Sept.	447	1,003	78	1,221	1,124	157	154	27	145	166	35	40	443	839	832	68.7	74.0	383	186	126	101
	9 mos.	452	7,738	697	9,509	9,324	1,377	1,345	238	1,423	1,389	309	364	3,834	7,492	7,326	78.8	78.6	2,017	1,024	714	744
Kansas City Southern	Sept.	891	3,555	119	4,024	3,511	406	334	35	498	379	91	91	1,101	2,227	2,005	55.4	57.1	1,797	844	697	649
	9 mos.	891	30,481	1,333	34,811	32,839	3,784	3,366	295	4,280	4,030	779	775	10,008	19,965	19,011	57.4	57.9	14,847	6,893	5,913	5,600
Kansas, Oklahoma & Gulf	Sept.	327	630	1	637	512	114	92	5	29	32	9	26	110	302	297	47.5	58.1	334	170	118	81
	9 mos.	327	5,360	5	5,412	4,915	922	621	55	344	312	79	235	1,135	2,852	2,434	52.7	49.5	2,560	1,322	908	1,012
Lake Superior & Ishpeming	Sept.	156	500	....	619	573	64	47	9	49	50	12	2	129	258	239	41.7	41.7	361	197	169	151
	9 mos.	156	2,359	....	2,868	3,519	471	461	84	498	443	100	18	761	1,856	1,987	64.7	56.5	1,012	644	443	647
Lehigh & Hudson River	Sept.	96	296	....	297	261	41	42	3	28	26	9	13	81	174	168	58.7	64.3	123	49	47	58
	9 mos.	96	2,415	....	2,422	2,448	393	374	21	265	228	77	115	754	1,617	1,523	66.8	62.2	805	327	314	351
Lehigh & New England	Sept.	184	911	....	918	835	104	74	6	125	101	38	13	211	487	416	53.1	49.8	431	248	233	215
	9 mos.	184	6,392	....	6,447	6,566	703	898	57	1,148	1,020	336	105	1,713	3,984	4,024	61.8	61.3	2,463	1,502	1,461	1,399
Lehigh Valley	Sept.	1,218	6,587	308	7,248	6,462	818	887	85	1,025	1,101	199	135	2,473	4,703	4,856	64.9	75.1	2,546	1,251	1,251	903
	9 mos.	1,219	51,809	2,912	57,829	57,874	7,197	7,767	738	9,494	10,590	1,714	1,249	22,336	42,520	44,892	73.5	77.6	15,309	6,720	8,234	7,005
Long Island	Sept.	365	1,230	3,324	4,777	4,715	618	571	86	767	744	120	24	2,135	3,707	3,889	77.6	82.5	1,070	491	328	70
	9 mos.	365	10,088	27,576	39,774	40,209	5,509	5,474	774	7,054	7,581	1,068	142	20,757	34,963	35,932	87.9	89.4	4,811	4,405	—1,728	—2,246

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF SEPTEMBER AND NINE MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Deprec. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Louisiana & Arkansas	Sept.	756	1,981	56	2,115	1,971	382	391	20	293	230	84	70	561	1,381	1,321	65.3	67.0	734	248	381	326
	9 mos.	756	18,296	572	19,599	17,753	3,246	3,444	183	2,412	2,121	662	633	5,206	12,152	11,927	62.0	67.2	7,447	3,288	3,475	2,011
Louisville & Nashville	Sept.	4,765	17,141	938	19,551	17,499	2,820	2,480	226	4,078	3,763	705	328	6,605	14,465	13,702	74.0	78.3	5,086	3,537	2,722	1,915
	9 mos.	4,765	144,703	10,487	167,132	164,206	24,449	23,692	2,045	36,443	35,333	6,027	3,014	60,188	129,963	130,263	77.8	79.3	37,169	24,114	18,677	15,029
Maine Central	Sept.	981	1,786	114	2,068	1,987	493	418	49	393	351	69	24	758	1,748	1,586	84.5	79.8	320	146	142	163
	9 mos.	981	17,531	1,215	20,241	19,498	3,985	3,717	305	3,436	3,376	612	188	7,140	15,453	14,678	76.4	75.3	4,788	2,450	1,968	1,950
Midland Valley	Sept.	334	189	....	192	149	40	49	6	16	17	2	5	65	132	134	68.5	90.2	61	14	34	—3
	9 mos.	334	1,537	....	1,562	1,526	437	434	50	177	156	22	44	563	1,282	1,224	82.0	80.2	280	137	64	37
Minneapolis & St. Louis	Sept.	1,402	2,032	4	2,122	2,012	334	367	36	269	245	75	115	634	1,456	1,423	68.6	70.7	666	296	256	213
	9 mos.	1,404	15,854	69	16,484	15,874	2,871	3,025	245	2,530	2,380	663	1,068	5,368	12,800	12,640	77.7	79.6	3,684	1,920	1,382	935
Minn., St. Paul & Sault Ste. Marie	Sept.	3,223	4,414	105	4,732	4,328	1,052	739	47	576	527	73	71	1,430	3,256	2,888	68.8	66.7	1,476	832	508	774
	9 mos.	3,224	29,465	868	32,133	30,189	6,809	6,291	422	5,994	5,808	838	680	12,254	26,863	26,020	83.6	86.2	5,269	3,109	1,774	1,770
Mississippi Central	Sept.	148	233	....	236	190	91	46	2	54	26	3	13	73	240	150	101.7	79.0	—4	—2	—14	—2
	9 mos.	148	1,978	—1	2,011	1,932	444	382	19	265	249	29	117	587	1,501	1,346	74.6	69.7	510	255	162	204
Missouri-Illinois	Sept.	172	507	....	512	457	95	68	4	64	62	21	9	123	301	270	58.8	59.1	211	130	81	74
	9 mos.	172	3,917	2	3,954	3,925	687	601	34	637	585	183	77	1,067	2,554	2,377	64.6	60.6	1,400	820	650	626
Missouri-Kansas-Texas Lines	Sept.	3,242	6,151	316	7,012	6,435	1,049	939	138	1,030	880	224	253	2,376	5,017	4,769	71.5	74.1	1,995	776	887	544
	9 mos.	3,242	54,009	3,299	62,562	56,851	8,930	8,795	1,125	9,106	8,425	2,009	2,269	22,015	45,157	44,485	72.2	78.2	17,405	7,522	7,217	4,343
Missouri Pacific	Sept.	6,950	18,249	949	21,223	19,102	3,561	3,697	274	4,011	3,836	729	451	7,033	15,690	15,795	73.9	82.7	5,533	2,192	2,714	1,811
	9 mos.	6,950	154,367	9,439	181,564	173,446	30,372	30,992	2,473	34,527	34,155	6,338	4,072	65,537	140,273	141,939	77.3	81.8	41,291	15,641	20,674	15,545
International-Great Northern	Sept.	1,104	2,806	166	3,276	3,062	607	559	32	571	532	104	57	1,162	2,525	2,550	77.1	83.3	751	147	482	269
	9 mos.	1,104	23,859	1,784	28,154	28,392	5,829	5,839	312	5,077	4,864	905	523	10,924	23,541	23,679	83.6	83.4	4,612	1,034	2,398	2,151
Gulf Coast Lines	Sept.	1,723	3,252	89	3,582	3,445	796	686	41	570	492	98	88	1,081	2,677	2,586	74.7	75.0	905	370	365	332
	9 mos.	1,724	30,077	848	32,977	32,541	6,787	6,597	393	4,966	4,975	849	798	10,620	24,469	24,547	74.2	75.4	8,508	3,011	3,893	3,254
Monongahela	Sept.	178	642	....	646	671	93	93	11	80	93	8	1	242	427	455	66.0	67.8	220	29	51	49
	9 mos.	178	5,917	....	5,951	6,651	808	811	101	724	792	68	10	2,201	3,824	3,977	64.3	59.8	2,127	341	500	759
Montour	Sept.	51	269	....	269	256	29	25	3	64	93	10	1	94	198	221	73.5	86.3	71	81	62	43
	9 mos.	51	1,700	....	1,703	1,946	203	271	23	645	788	145	8	721	1,660	1,938	97.5	99.6	43	362	352	245
Nashville, Chatt. & St. Louis	Sept.	1,032	3,002	140	3,608	2,844	619	534	46	448	467	95	114	1,155	2,454	2,302	68.0	81.0	1,153	550	596	250
	9 mos.	1,032	25,791	1,434	30,342	27,914	5,222	5,086	431	4,266	4,211	1,058	1,022	10,306	21,891	21,438	72.1	76.8	8,451	4,263	4,239	2,534
New York Central	Sept.	10,718	52,631	9,856	71,214	63,659	12,594	9,780	897	12,829	13,447	2,326	1,057	28,112	57,624	57,355	80.9	90.1	13,591	5,228	7,653	1,974
	9 mos.	10,713	421,095	92,731	587,774	591,316	84,010	79,994	8,350	121,531	122,553	20,341	9,629	260,850	504,739	516,423	85.9	87.3	83,035	46,534	28,153	16,755
Pittsburgh & Lake Erie	Sept.	221	4,028	67	4,332	3,877	566	482	113	1,041	1,400	249	72	1,345	3,245	3,603	74.9	92.9	1,088	824	1,186	266
	9 mos.	221	30,060	671	32,347	36,927	4,105	4,559	442	9,376	11,628	2,171	648	11,713	27,860	31,737	86.1	85.9	4,487	4,602	6,958	5,477
New York, Chicago & St. Louis	Sept.	2,184	14,392	179	15,078	13,355	1,608	1,527	134	2,152	2,188	333	288	4,756	9,249	9,079	61.3	68.0	5,829	2,977	2,487	1,877
	9 mos.	2,185	111,654	1,591	117,305	118,503	14,459	13,677	1,262	18,763	19,681	2,962	2,739	41,052	80,971	82,054	69.0	69.2	36,334	18,560	15,705	16,310
New York, New Haven & Hartford	Sept.	1,793	7,837	4,363	13,784	12,699	2,081	1,961	288	2,075	2,065	375	194	5,725	10,793	10,232	78.3	80.6	2,991	1,088	1,008	300
	9 mos.	1,793	67,832	38,762	119,975	116,162	18,208	17,946	2,463	18,959	19,118	3,359	1,747	51,232	96,577	95,071	80.5	81.8	23,398	9,256	6,624	4,498
New York Connecting	Sept.	21	247	....	276	210	135	92	25	21	16	....	....	66	225	171	81.3	81.6	52	80	—34	1
	9 mos.	21	2,653	....	2,894	2,430	849	881	226	238	149	....	....	732	1,846	1,649	63.8	67.9	1,048	739	413	399
New York, Ontario & Western	Sept.	541	634	5	655	559	149	120	24	85	84	23	25	267	556	538	84.9	96.2	99	38	—13	—85
	9 mos.	541	4,995	62	5,240	5,449	1,113	1,055	209	743	786	205	228	2,372	4,735	4,936	90.4	90.6	504	330	—397	—429
New York, Susquehanna & Western	Sept.	120	454	43	530	391	61	59	6	56	53	11	10	207	358	325	67.5	83.1	172	31	99	26
	9 mos.	120	3,566	344	4,112	4,052	518	498	50	528	480	101	78	1,809	3,171	3,003	77.1	74.1	942	282	331	418
Norfolk & Western	Sept.	2,135	16,472	401	17,576	18,582	2,588	1,910	342	3,225	3,053	592	296	4,914	11,670	10,998	66.4	59.2	5,906	4,097	3,125	3,011
	9 mos.	2,135	135,908	4,131	147,283	150,511	21,256	20,109	2,728	32,056	29,995	5,294	2,669	43,568	105,175	102,858	71.4	68.3	42,108	29,425	20,517	21,783
Norfolk Southern	Sept.	643	1,027	....	1,041	903	198	184	14	118	124	24	48	331	804	735	77.2	81.4	238	103	75	34
	9 mos.	643	8,613	....	8,747	8,443	1,772	1,573	120	1,064	1,041	212	429	2,747	6,720	6,424	76.8	76.1	2,026	920	693	601
Northern Pacific	Sept.	6,881	16,001	511	17,755	15,544	2,155	2,443	197	2,712	2,601	411	293	5,742	11,601	11,556	65.3	74.3	6,154	3,405	2,716	1,574
	9 mos.	6,884	114,106	5,450	129,775	125,065	22,469	20,471	2,555	25,445	24,788	3,552	2,710	49,754	106,648	102,028	82.2	81.6	23,127	15,497	9,942	9,831
Northwestern Pacific	Sept.	331	1,134	5	1,173	1,015	256	230	16	105	34	4	6	470	852	689	72.7	67.9	320	168	47	37
	9 mos.	331	9,625	61	9,987	8,629	2,340	2,058	161	943	883	38	49	3,824	7,305	6,872	73.1	79.6	2,682	1,227	436	231
Oklahoma City-Ada-Atoka	Sept.	132	103	....	104	87	18	24	2	2	7	....	2	24	51	57	48.7	65.0	53	25	17	9
	9 mos.	132	871	....	879	868	205	201	23	37	41	....	16	206	501	486	57.1	56.0	377	171	111	122
Pennsylvania	Sept.	10,120	69,418	12,225	90,768	88,970	12,331	11,400	1,183	21,276	21,280	3,182	1,340	36,489	74,782	74,854	82.4	84.1	15,986	7,180	7,097	4,899
	9 mos.	10,120	556,420	118,751	750,751	769,116	96,316	96,828	12,161	165,888	190,367	24,557	11,808	328,443	632,582	663,112	84.3	86.2	118,169	52,862	52,507	39,444
Pennsylvania-Reading Seashore Lines	Sept.	364	680	236	954	980	214	181	22	96	97	15	11	644	1,007	944	105.6	96.3	—53	130	—305	—217
	9 mos.	364	5,436	1,925	7,643	8,070	1,906	1,955	225	882	865	138	99	5,270	8,488	8,705	111.0	107.9	—845	1,069	—3,059	—2,799

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF SEPTEMBER AND NINE MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Depre. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Pittsburg & Shawmut	Sept.	97	236	....	236	202	61	51	4	40	59	9	3	64	174	174	73.8	86.1	62	10	79	36
	9 mos.	97	1,672	....	1,680	1,794	327	305	46	460	464	79	31	459	1,359	1,367	80.9	76.2	321	59	505	372
Pittsburgh & West Virginia	Sept.	132	839	....	853	731	161	146	23	168	182	36	55	186	601	595	70.4	81.4	252	132	150	100
	9 mos.	132	6,184	....	6,276	6,507	1,051	1,289	211	1,526	1,593	313	463	1,638	4,919	5,354	78.4	82.3	1,357	749	942	910
Reading	Sept.	1,320	10,311	579	11,549	10,483	1,800	1,609	336	2,108	2,102	430	155	4,057	8,509	8,145	73.7	77.7	3,040	1,603	1,609	1,259
	9 mos.	1,321	84,684	5,149	95,848	95,293	14,345	14,718	2,164	18,970	19,843	3,627	1,354	37,009	75,183	77,067	78.4	80.9	20,665	10,905	10,979	9,358
Richmond, Fredericksburg & Potomac	Sept.	118	1,195	458	1,933	2,021	329	303	24	316	244	67	22	674	1,471	1,348	76.1	66.7	461	235	151	161
	9 mos.	118	13,373	5,505	21,598	20,479	3,076	2,618	214	2,742	2,522	586	190	6,432	13,717	13,160	63.5	64.3	7,881	4,321	2,564	2,356
Rutland	Sept.	397	440	22	533	479	74	65	10	74	70	16	19	269	461	412	86.5	85.9	72	30	21	17
	9 mos.	397	3,401	180	4,245	4,414	723	736	86	723	727	129	175	2,110	3,957	4,074	93.2	92.3	289	262	—127	—118
Sacramento Northern	Sept.	264	402	....	416	356	67	44	3	15	17	4	2	112	206	167	49.5	47.0	210	16	163	144
	9 mos.	264	2,054	....	2,131	2,512	580	484	82	133	246	37	20	803	1,621	1,670	76.1	66.5	510	135	191	516
St. Louis-San Francisco	Sept.	4,601	9,835	521	11,257	10,337	1,717	1,612	184	1,723	1,772	467	307	3,767	7,988	7,977	71.0	77.2	3,269	1,548	1,740	1,113
	9 mos.	4,601	80,376	5,286	93,220	90,932	15,106	15,339	1,623	15,601	15,653	4,300	2,660	33,919	71,664	72,593	76.9	79.8	21,557	10,385	11,163	8,272
St. Louis, San Francisco & Texas	Sept.	159	368	5	415	342	50	55	3	33	38	1	22	144	262	287	63.1	84.1	153	—16	119	15
	9 mos.	159	3,797	63	4,122	3,591	449	448	51	330	331	9	185	1,382	2,452	2,451	59.5	68.3	1,670	600	586	260
St. Louis Southwestern Lines	Sept.	1,569	5,962	32	6,242	5,093	774	677	65	656	661	99	176	1,656	3,453	3,400	55.3	66.8	2,789	1,323	1,290	570
	9 mos.	1,569	51,316	337	53,820	51,298	6,690	6,506	571	5,788	6,241	865	1,491	14,978	30,647	32,183	56.9	62.7	23,172	11,967	9,201	6,657
Seaboard Air Line	Sept.	4,145	9,838	876	11,565	10,718	1,558	1,654	184	2,379	2,071	614	363	3,753	8,551	8,166	73.9	76.2	3,013	1,366	1,630	1,240
	9 mos.	4,145	100,128	12,138	121,108	111,985	17,852	18,241	1,565	21,574	19,334	5,212	3,301	38,921	86,599	83,404	71.5	74.5	34,510	15,746	16,912	12,708
Southern	Sept.	6,306	19,907	1,654	23,258	20,577	3,002	2,279	323	3,988	4,137	759	439	7,157	15,472	14,933	66.5	72.6	7,786	4,041	3,238	1,603
	9 mos.	6,306	168,883	16,068	200,108	190,855	26,459	26,280	2,383	37,017	37,688	6,796	3,928	66,440	142,010	143,409	71.0	75.1	58,098	31,384	24,131	18,529
Alabama Great Southern	Sept.	326	1,405	81	1,648	1,642	224	1,043	32	397	383	81	33	479	1,195	2,002	72.5	121.9	452	236	174	—266
	9 mos.	326	12,370	875	14,461	14,474	2,126	2,937	183	3,408	3,596	729	304	4,620	11,035	12,437	76.3	85.9	3,426	2,212	1,172	621
Cinn., New Orleans & Texas Pacific	Sept.	337	3,268	182	3,644	3,289	454	295	31	796	1,200	184	72	932	2,373	2,612	65.1	79.4	1,271	820	625	80
	9 mos.	337	29,580	1,956	33,318	32,784	4,130	3,972	329	7,646	7,651	1,609	644	8,825	22,400	22,228	67.2	67.8	10,918	7,134	4,710	4,301
Georgia Southern & Florida	Sept.	397	569	45	678	601	139	111	7	69	64	8	8	210	442	402	65.2	66.9	236	68	56	32
	9 mos.	397	5,398	821	6,825	6,198	1,434	1,404	67	623	608	84	72	2,066	4,373	4,239	64.1	68.4	2,451	773	613	441
New Orleans & Northeastern	Sept.	203	1,000	52	1,110	1,030	172	53	20	128	121	27	19	213	579	470	52.3	45.6	531	319	188	152
	9 mos.	203	7,838	538	8,943	9,723	1,407	1,330	139	1,136	1,159	245	171	2,076	5,200	5,317	58.1	54.7	3,743	2,435	1,190	1,395
Southern Pacific	Sept.	8,113	43,041	3,381	49,853	42,177	5,472	4,759	481	9,202	11,098	1,577	845	17,874	35,415	35,147	71.0	83.3	14,438	7,338	5,939	3,710
	9 mos.	8,119	346,790	34,455	410,346	378,615	47,529	43,147	4,719	82,242	78,984	13,883	7,424	153,521	309,033	293,927	75.3	77.6	101,313	50,431	41,881	30,063
Texas & New Orleans	Sept.	4,291	11,277	621	12,711	10,991	1,755	1,626	195	1,587	493	87	255	4,288	8,429	7,256	66.3	66.0	4,282	1,895	1,403	173
	9 mos.	4,291	95,480	6,572	109,374	101,514	16,636	16,264	1,201	15,468	15,544	788	2,309	38,690	78,121	78,610	71.4	77.4	31,253	13,660	9,635	6,043
Spokane International	Sept.	152	279	1	296	247	63	54	2	23	19	8	5	68	168	150	56.8	60.8	128	49	57	40
	9 mos.	152	2,080	10	2,203	1,972	560	494	20	194	176	73	45	597	1,492	1,322	67.7	67.0	711	192	379	283
Spokane, Portland & Seattle	Sept.	944	2,656	98	2,912	2,857	413	398	46	324	334	93	29	824	1,681	1,619	57.7	56.7	1,231	414	705	575
	9 mos.	938	21,032	889	23,294	23,103	3,743	3,588	523	2,956	2,772	827	248	7,081	14,840	14,196	63.7	61.4	8,455	2,993	4,637	4,487
Tennessee Central	Sept.	286	503	3	535	408	62	91	5	61	65	29	12	151	308	327	57.6	80.0	227	56	123	22
	9 mos.	286	3,658	30	3,910	3,794	843	810	47	587	615	175	106	1,277	3,008	3,002	76.9	79.1	901	261	339	271
Texas & Northern	Sept.	8	94	....	105	128	5	5	....	11	13	2	1	26	47	55	44.4	42.7	59	30	16	12
	9 mos.	8	864	....	963	1,068	50	126	1	81	104	22	9	216	399	547	41.4	51.3	564	283	171	144
Texas & Pacific	Sept.	1,834	6,222	356	7,142	6,118	881	822	91	1,035	1,038	244	179	2,086	4,514	4,376	63.2	71.5	2,627	927	1,463	884
	9 mos.	1,834	52,482	3,583	61,132	57,031	8,572	7,815	950	10,239	8,823	2,253	1,612	19,230	42,680	40,151	69.8	70.4	18,452	7,172	8,730	6,806
Texas Mexican	Sept.	162	253	....	272	256	61	73	5	43	29	9	8	60	192	198	70.5	77.2	80	30	27	—4
	9 mos.	162	2,448	....	2,610	2,493	616	613	56	306	311	75	76	541	1,714	1,734	65.7	69.5	896	386	306	257
Toledo, Peoria & Western	Sept.	239	589	....	598	574	105	101	6	42	37	10	44	136	360	347	60.2	60.5	238	110	83	98
	9 mos.	239	4,943	....	5,018	5,062	889	899	56	417	357	83	394	1,153	3,161	3,163	63.0	62.5	1,857	848	620	624
Union Pacific	Sept.	9,835	43,951	3,146	50,378	43,317	5,746	4,910	640	8,036	7,731	1,188	744	16,216	32,975	30,914	65.5	71.4	17,403	9,734	5,486	5,015
	9 mos.	9,853	313,612	30,712	374,242	366,791	55,873	51,134	4,888	68,356	69,483	10,535	8,148	133,612	286,058	280,140	76.4	76.4	88,185	56,408	19,413	20,761
Utah	Sept.	110	148	....	148	139	40	16	2	37	47	10	1	50	136	130	91.4	93.7	13	7	18	12
	9 mos.	110	1,064	....	1,067	865	216	154	19	417	416	61	7	506	1,215	1,057	113.8	122.1	—147	91	—131	—172
Virginian	Sept.	611	3,665	2	3,761	4,251	462	526	60	760	923	176	48	814	2,172	2,490	57.8	58.6	1,588	1,107	771	1,010
	9 mos.	611	32,591	18	33,846	34,105	4,381	4,044	526	7,827	7,472	1,554	411	7,850	21,316	20,133	63.0	59.0	12,531	7,674	6,310	6,653
Wabash	Sept.	2,393	8,207	425	9,412	8,465	1,345	1,363	18	1,226	1,091	344	280	3,866	7,077	6,792	75.2	80.2	2,336	805	1,030	711
	9 mos.	2,393	72,773	3,859	83,087	80,897	11,335	12,088	1,063	11,445	10,751	3,063	2,578	34,378	63,006	62,558	75.8	77.3	20,081	8,191	7,975	5,817
Ann Arbor	Sept.	294	285	3	298	743	94	127	18	92	99	30	24	153	378	572	127.1	76.9	—81	—56	—17	49
	9 mos.	294	5,314	4	5,400	7,028	942	905	153	1,013	957	270	227	2,302	4,648	5,151	86.1	73.3	752	269	396	716
Western Maryland	Sept.	836	4,012	10	4,215	3,669	513	499	66	831	813	172	89	1,233	2,840	2,722	67.4	74.2	1,376	816	859	559
	9 mos.	836	32,693	86	34,623	35,354	4,082	4,843	444	7,322	7,131	1,559	783	11,076	24,916	25,275	72.0	71.5	9,707	5,737	6,010	5,894
Western Pacific	Sept.	1,193	4,958	260	5,345	4,696	980	585	68	616	656	119	225	1,414	3,488	3,015	65.3	64.2	1,856	927	736	367
	9 mos.	1,193	36,235	2,479	39,696	40,186	6,977	5,513	733	5,820	5,937	1,016	1,677	12,169	28,762	26,840	72.5	66.8	10,934	5,580	4,435	5,147
Wisconsin Central	Sept.	1,046	2,649	47	2,854	2,699	369	409	37	419	305	66	63	1,093	2,046	1,986	71.7	73.6	808	151	439	377
	9 mos.	1,046	21,098	424	22,872	23,040	3,402	3,309	336	3,926	4,051	584	624	9,580	18,471	18,591	80.8	80.7	4,401	1,346	1,726	1,638

One of the first railroads to adopt air-conditioning of passenger-train cars obtained 15 years of service from its first EDISON batteries applied to cars equipped with electromechanical air-conditioning. These same batteries were then applied to head-end cars where they are in operation now.

An analysis of the EDISON batteries in operation by another railroad, as of the end of a recent twelve month period, showed that the average age of all cells of all batteries replaced during the year was 18.04 years and that the age of the oldest battery in operation was 35 years. These figures cover all batteries in operation on passenger-train cars both with and without air-conditioning. *

...life records like these are further evidence that EDISON batteries cost less per year

in passenger-train-car service

* A total of more than 1000 batteries

Longest life—Lightest weight

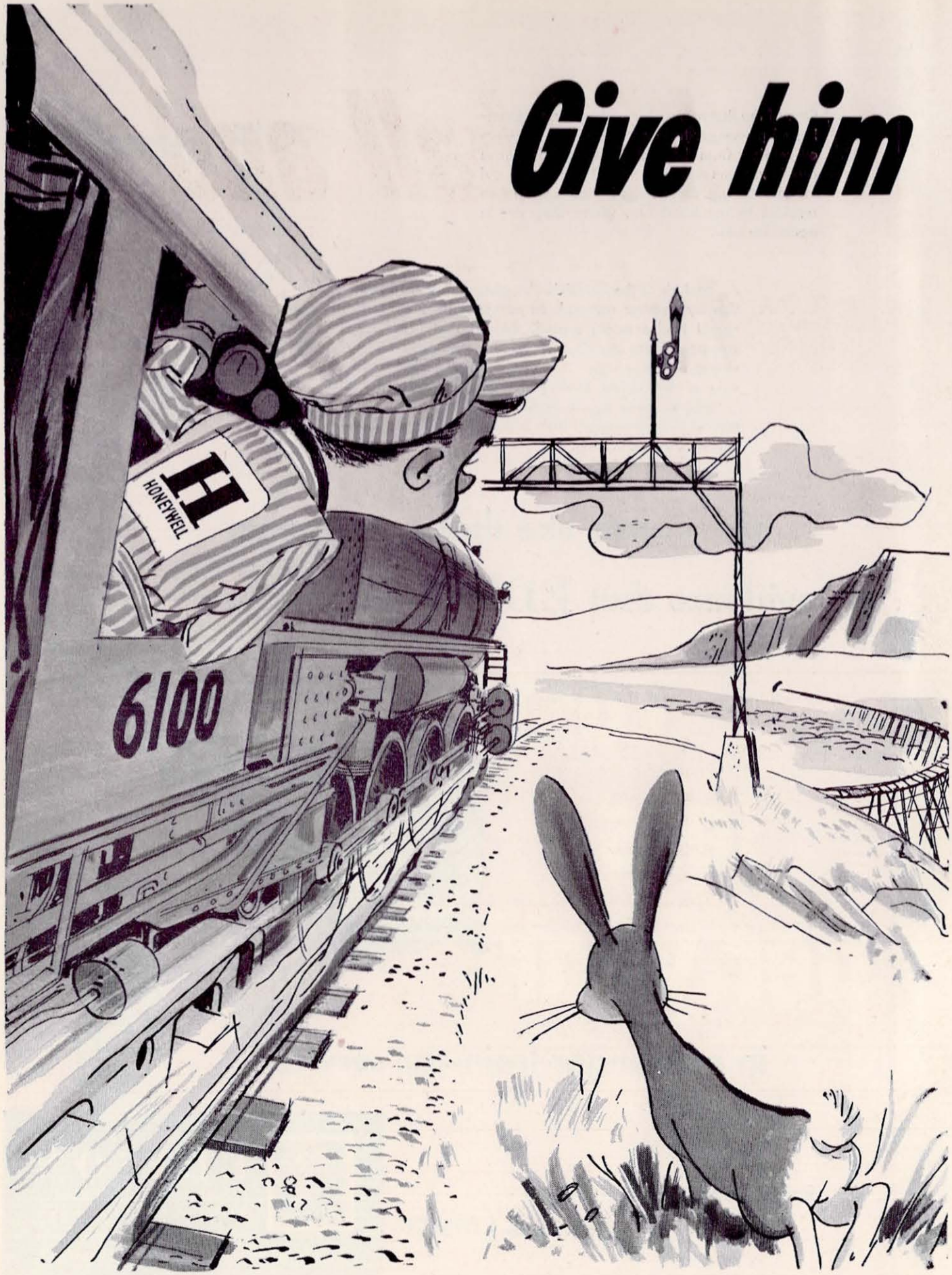
. . . you get both with an EDISON

EDISON

Nickel • Iron • Alkaline

STORAGE BATTERIES

Edison Storage Battery Division of
Thomas A. Edison, Incorporated, West Orange, N.J.


Give him
HONEYWELL
6100

the highball and watch him roll!

Speed is this youngster's forte! Look at the way he's moved into the car-heating field – and look at the progress and benefits to the railroad industry since then:

* *the cost of passenger car heating under competitive bidding has been substantially reduced.*
* *passenger car heating systems have been greatly simplified, with a marked reduction in maintenance parts.*
* *steam piping has likewise been simplified, with a significant reduction in steam consumption for car heating.*

Now he's ready for action on your line!

You'll like his knack for helping out wherever he can – for reducing maintenance expense and road failures – and for solving all kinds of car heating problems, whether they concern new installations or the modernization of present cars.

He may be young in years – but he's experienced – and a *fair, rugged* competitor. Just the kind you and every buyer wants around when making important buying decisions. Ask him over soon and see for yourself.

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Honeywell

H HONEYWELL

Transportation Division

Today, Honeywell Moduflow Car Heating Systems are proving themselves in use on the cars of eighteen different railroads across the nation.

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dependable
economical
STOPS
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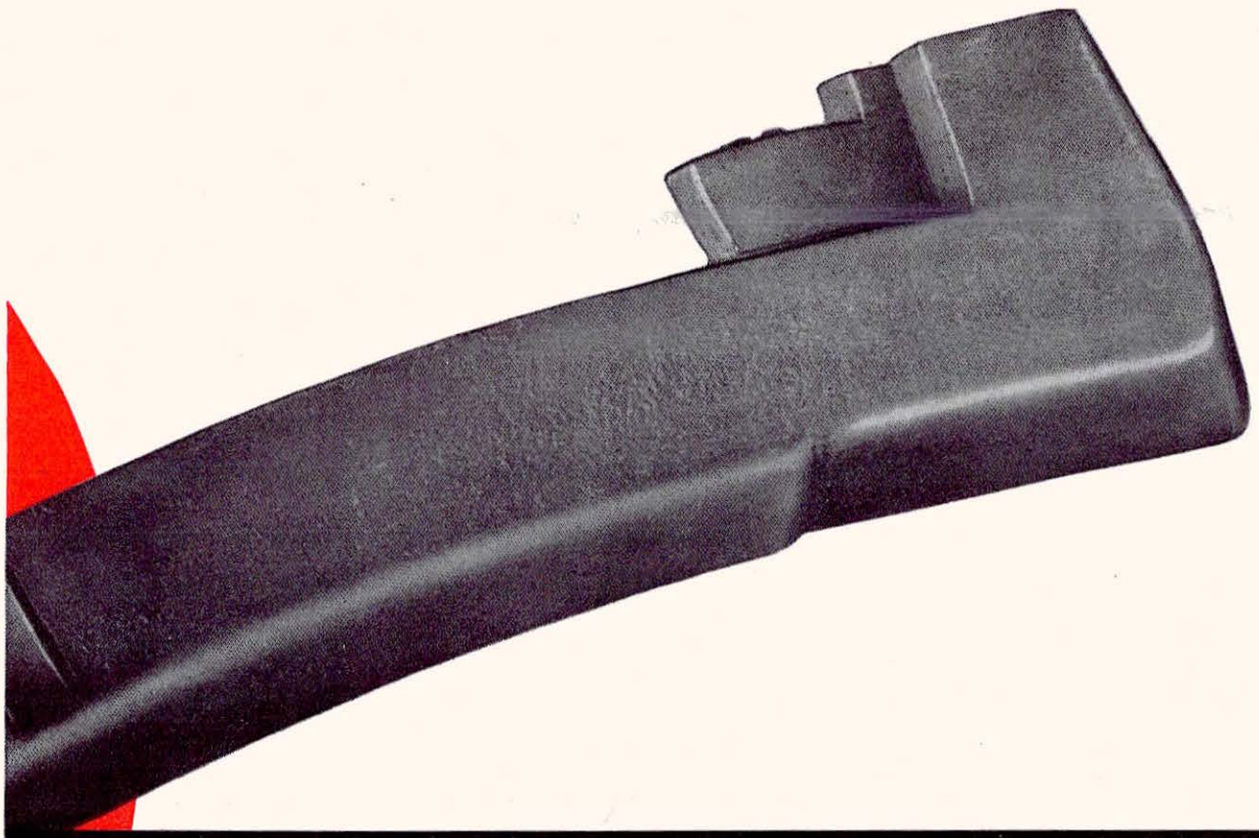

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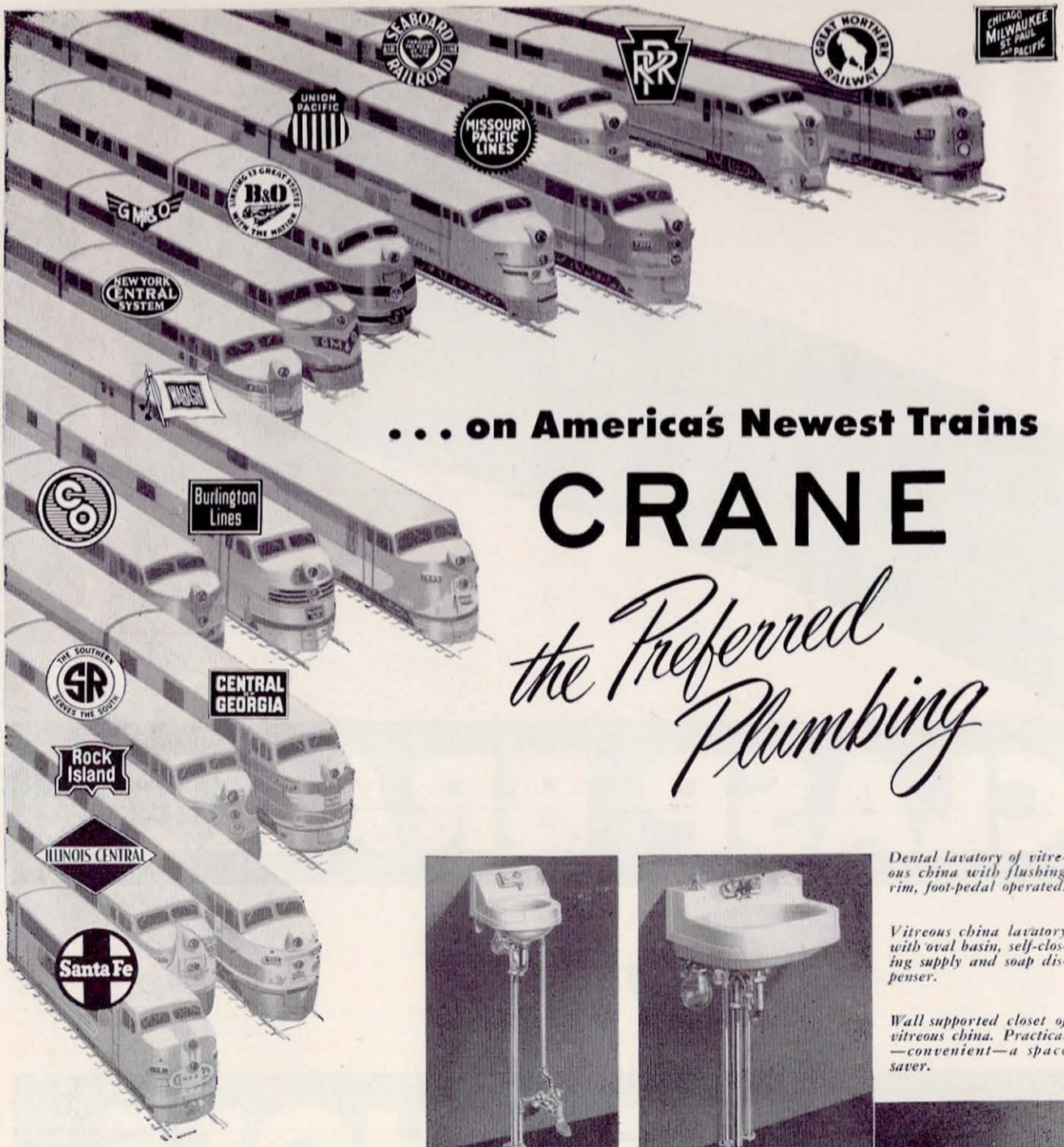
AMERICAN Brake Shoe COMPANY

BRAKE SHOE AND CASTINGS DIVISION



. . . on America's Newest Trains

CRANE

the Preferred Plumbing

Dental lavatory of vitreous china with flushing rim, foot-pedal operated.

Vitreous china lavatory with oval basin, self-closing supply and soap dispenser.

Wall supported closet of vitreous china. Practical —convenient—a space saver.

● The list of feature trains equipped with Crane plumbing reads like a Blue Book of modern railroading. Above are shown some of the roads whose newest trains provide maximum comfort for their passengers—and have plumbing by Crane.

The discriminating American public demands the maximum in style and service. The rough treatment received by any equipment used by the general public demands that this equipment be of the highest quality. Crane plumbing, because of its high quality, modern styling and ability to withstand abuse, has been the preferred plumbing on all types of trains from work-a-day commuters to lordly streamliners since it was first introduced in the railroad field many years ago.

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AO COVERGLAS GOGGLES
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NEW
Safety Goggles

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#327

NEW – 4 WAYS!

1. New Cup Size and Shape
2. New Lens Size and Shape
3. New Side Shields
4. New Easy Lens Replacement

AO's newest development in eye protection—Chippers' and Welders' Coverglas Goggles—can be worn over practically every pair of personal glasses (even the biggest frames) and most types of safety prescription goggles *with and without side shield.*

Wider vision, too, because the lenses are larger and scientifically designed to give up to 20% more vision. Yet, with all these features the goggles weigh but a fraction of an ounce more than ordinary Coverglas goggles . . . cost only slightly more.

These goggles are the newest . . . and two of the greatest . . . developments since the advent of safety goggles. Get all the facts about these two outstanding Coverglas goggles from your AO Safety Products Representative. He can supply you.

QUICK FACTS

- Lens easily replaceable from rear (not front) by means of a spring clamp—no tools needed
- Lightweight, brown plastic cups fit face snugly, won't conduct heat or electricity
- Light-tight side shields for welders (on No. 327 goggle) provide indirect ventilation
- Bridge—High-grade leather. Instant adjustment
- AO worker-lab tests show much greater field of vision and increased comfort
- All-rubber headband, easily adjustable

"326" Chippers' Coverglas goggle supplied with regular Super Armorplate lenses. "327" Welders' Coverglas goggle supplied with regular Noviweld lenses and cover lenses.

AO's Industrial Vision Program Increases Production, Decreases Accidents. Write today for booklet "Improved Industrial Vision" to 1011 Vision Park, Southbridge, Mass.

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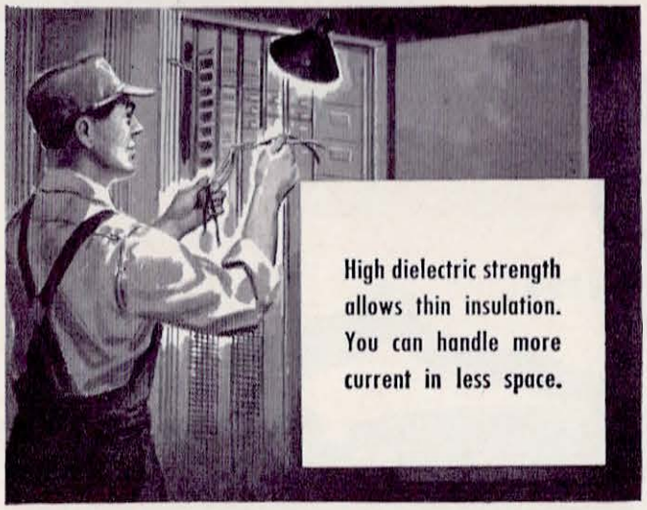

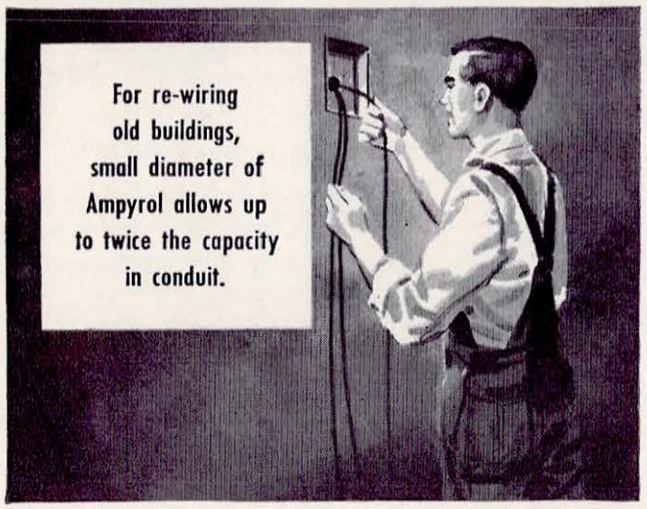

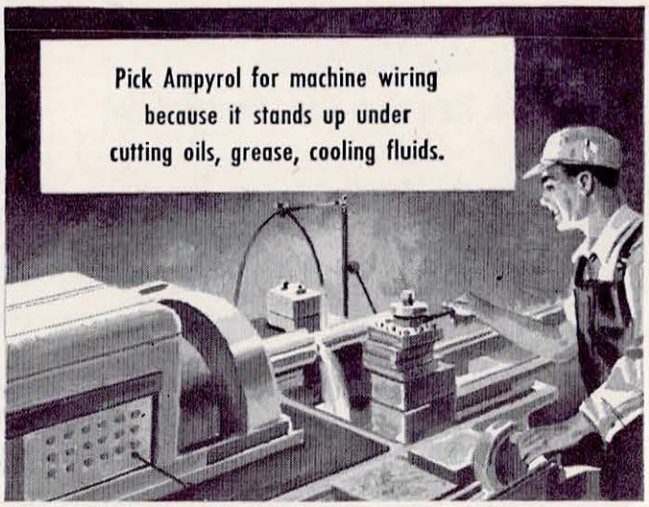

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- asbestos cords and cables
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AMERICAN ELECTRICAL WIRE AND CABLE
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your insulations?

Ampyrol for all jobs!

In the electrical industry, we've been developing insulations so fast that it's hard to keep track of them. But if you're looking for a special purpose insulated wire, you can usually use U·S·S Ampyrol, and get a better job in the bargain.

Ampyrol, for example, strips clean as a whistle. Many brilliant colors are available, and they run all the way through the insulation. It will not support flame yet it requires no protective armor or braid.

Direct sunlight and industrial fumes have no effect on Ampyrol, so use it for exposed instruments, etc.

But the most unusual thing about Ampyrol is its almost unbelievable durability in the face of conditions that ruin ordinary insulation. Ozone concentrations that destroy rubber in a matter of minutes have no effect on Ampyrol. It withstands complete immersion in oil or naphtha for months on end. Months in a salt spray have no effect. It is unharmed by ultraviolet light, moisture, or fumes containing acids or alkalies.

In addition, for ordinary low voltage applications, very thin walls of Ampyrol can be used. It's a natural for instrument or switchboard wiring when space is at a premium.

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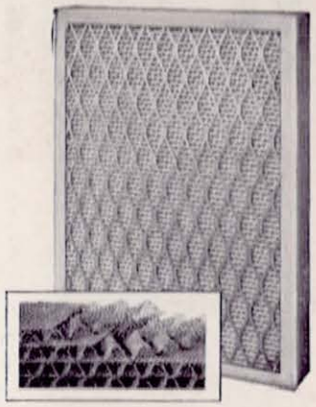
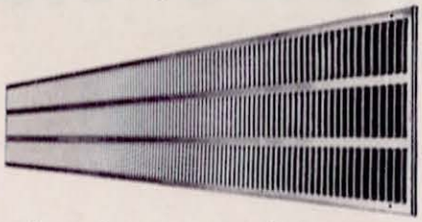


FAR-AIR *Filter*

Many of the major railroads in the country are standardizing on Far-Air filters for diesel locomotive and car body ventilation. Rigid field tests have proved that Far-Air's unique herringbone-crimp design and sturdy construction assure better performance under the most severe operating conditions. Filter service is less frequent because of greater dirt-holding capacity with less pressure loss.

FAR-AIR *Dynamic Grille*



Farr-designed equipment to eliminate foreign particles from air induction systems on moving equipment without interfering with air requirements. Practical for a number of applications and available in stainless or plain steel in a variety of sizes.

FAR-AIR*

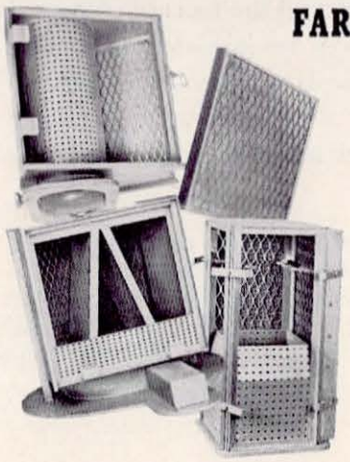
Air Filtration and Filter Servicing Equipment

FAR-AIR *EC-2 Unit*

Engine and compressor filter assemblies available in a wide range of sizes.

Oil Eliminator

New type, high efficiency unit designed for crankcase scavenging service.

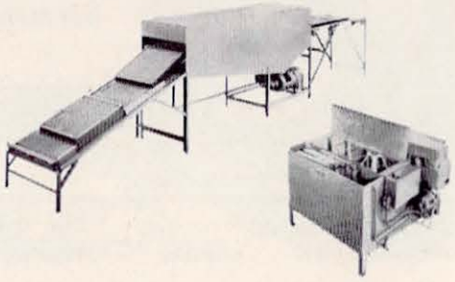


FAR-AIR *Diesel Engine Assemblies*

The wide variety available makes these assemblies practical for use on all types of engines. Design standardization provides interchangeability of Far-Air filters. Many major railroads use Far-Air DEA units as standard equipment.

FAR-AIR *Utility Washer & Oiler*

This equipment cuts filter maintenance costs, allows one-man operation, automatic control, positive oiling, and permits immediate use of filters after servicing. Catalogs available on both large and small size units.



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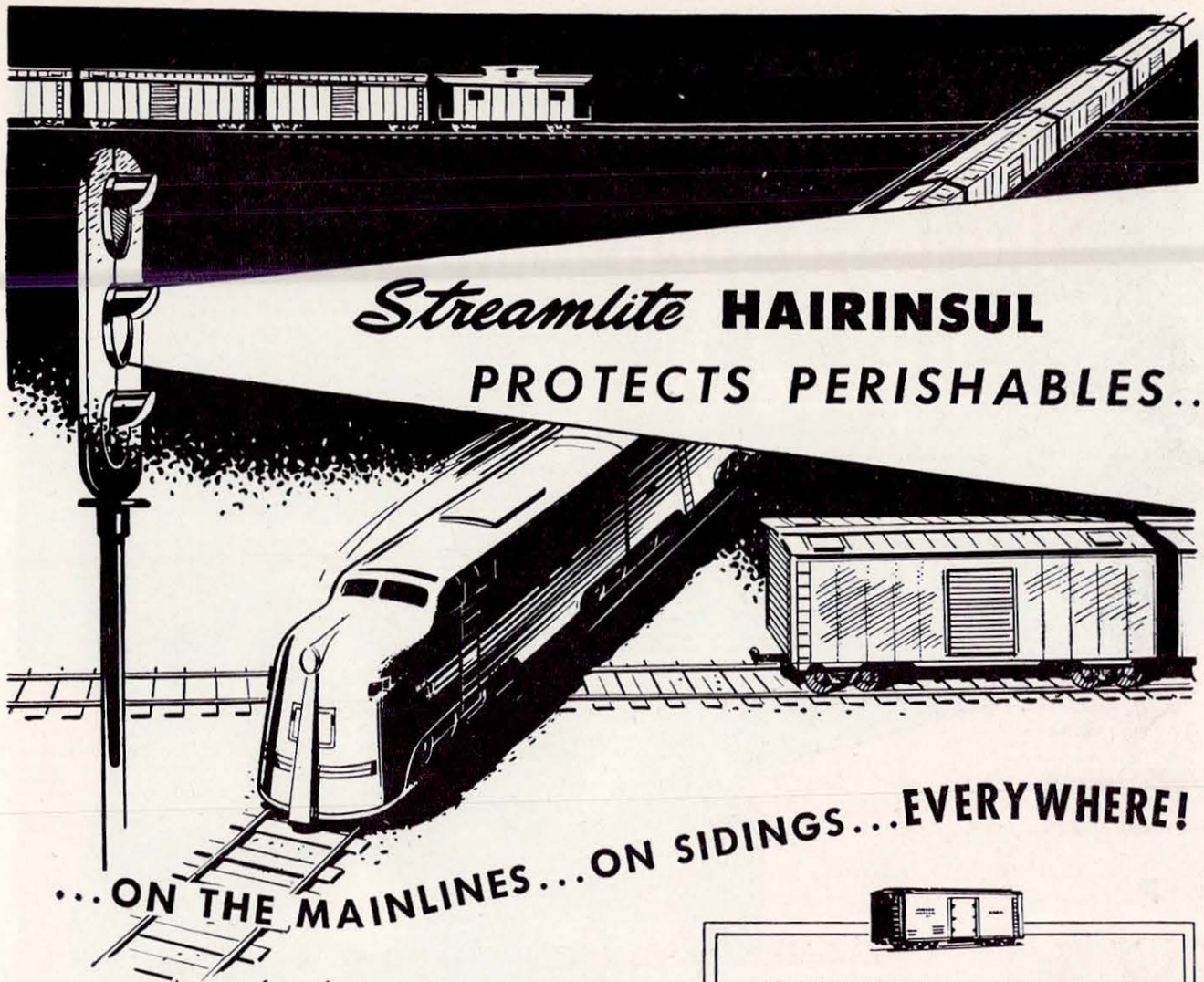

Streamlite HAIRINSUL
PROTECTS PERISHABLES...
...ON THE MAINLINES...ON SIDINGS...EVERYWHERE!

At any location . . . at any temperature Streamlite HAIRINSUL provides maximum protection to valuable shipments of perishables.

Major refrigerator car builders have been using all-hair insulation for nearly half a century—and today they specify Streamlite HAIRINSUL because of its 40% less weight, higher efficiency and greater economy.

Yes, Streamlite HAIRINSUL assures you all the major advantages listed at the right—and more besides. Write for complete data.

LOW CONDUCTIVITY. Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity—.25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT. Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT. Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL. Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE. STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings are available.

HIGH SALVAGE VALUE. The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

Sets The Standard By Which All Other Refrigerator Car Insulations Are Judged

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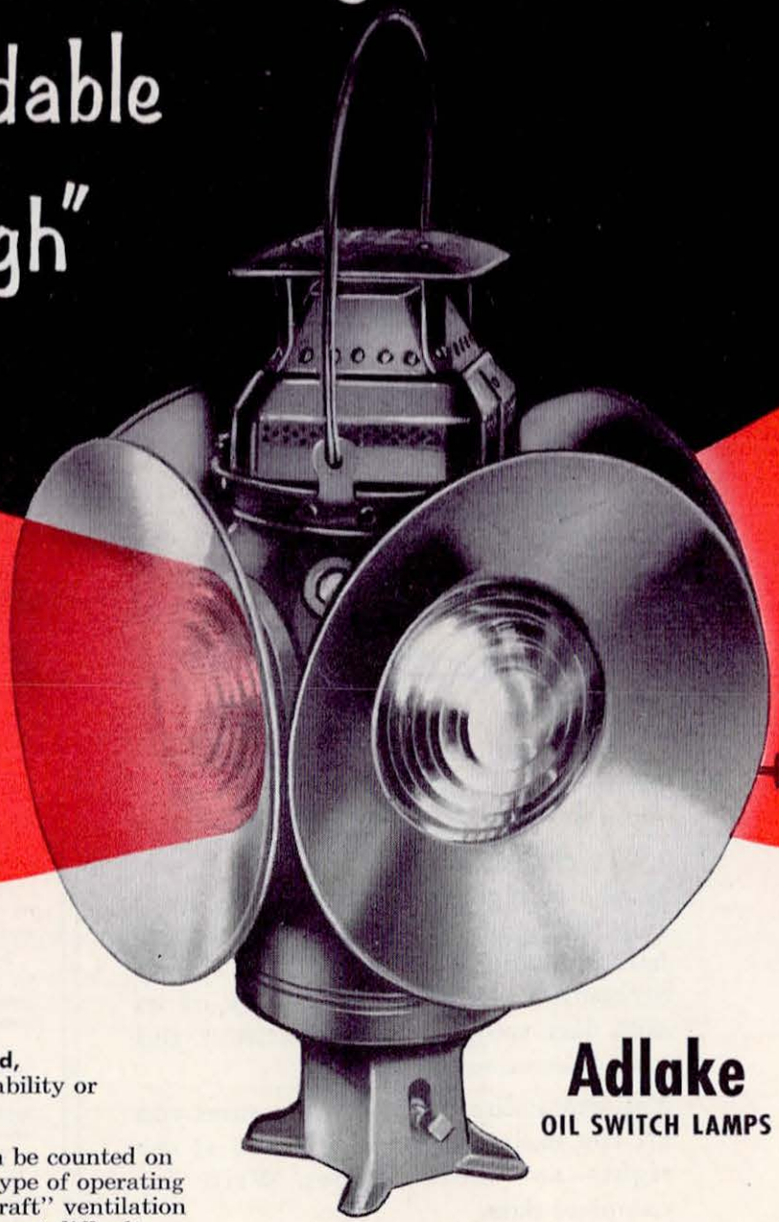
There's no such thing as "dependable enough"



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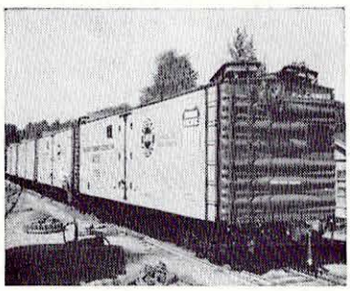
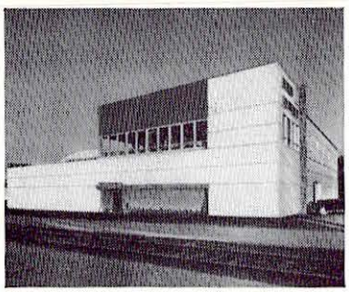


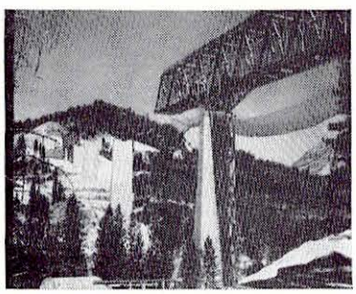
Siding and lining reefers; bunkers and bulkheads in reefers. Siding and lining box cars, work cars and other rolling stock. Underlayment for floor coverings, luggage racks, interior details in passenger cars.

BUILDING and MAINTENANCE



Siding, interior paneling, movable partitions and cabinet work . . . subflooring, wall and roof sheathing. Station booths and counters. Signs and signal boards. Parts bins. Pallets. Track shims. Portable buildings.

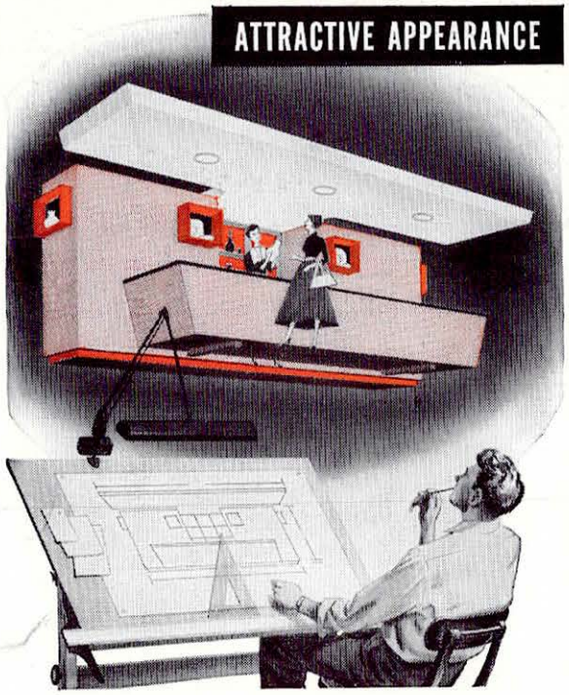
CONCRETE FORM WORK



For stations, shops and maintenance buildings . . . bridges, aqueducts and other concrete jobs . . . re-usable plywood concrete form panels offer these advantages: smooth, fin-free concrete; time and labor savings through simplified form construction; low cost-per-use.

Only plywood gives you all 6

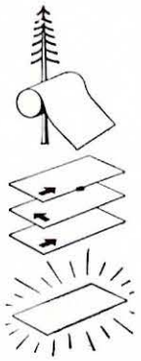
ATTRACTIVE APPEARANCE



DOUGLAS FIR PLYWOOD has the warmth and charm of real wood . . . the natural texture and "feel". And why not? For this is one panel material that *is* real wood . . . not "re-worked" . . . chemically unchanged. Versatile plywood takes any finish—paint, in modern enamel, decorator colors . . . varnish, lacquer . . . or smart light-stains that capitalize on the beauty of the natural grain.

Add this to plywood's many other advantages and you'll see why it is preferred for fixtures and furniture . . . paneling and cabinets . . . displays and partitions . . . siding and signs. No other building material does so many jobs so well.

For further information, write Douglas Fir Plywood Association, Tacoma 2, Washington

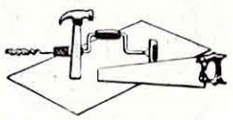


Douglas fir plywood is real wood, made by "unwinding" giant logs

into thin wood sheets which are inseparably cross-laminated

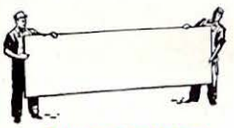
to form large, light panels having beauty and great strength

1 Attractive Appearance

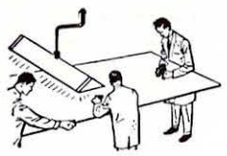


2 Workability

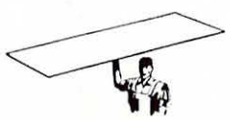
3 Cross Laminated Strength



4 Large Panel Size



5 Tested Quality



6 Light Weight

Douglas Fir Plywood

AMERICA'S BUSIEST BUILDING AND INDUSTRIAL MATERIAL

TM

today's newest symbol in railroading...

Today's remaining opportunities to cut
operating costs substantially demand
a diesel locomotive of truly universal application.
Continuing to lead progress in the motive power
field, Fairbanks-Morse now fills that need
by presenting — the Train Master.

TM — that is the symbol for the new
Fairbanks-Morse 2400 horsepower engine,
six-axle, six-motor diesel locomotive.
Train Master is a *new* locomotive . . . new
in performance . . . new in efficiency and economy.

Watch for the Train Master — the newest name
in railroading that brings new opportunity
for greater operating efficiency in all classes
of service. Fairbanks, Morse & Co., Chicago 5, Ill.

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL MACHINERY • PUMPS • SCALES
RAIL CARS • HOME WATER SERVICE EQUIPMENT • FARM MACHINERY • MAGNETOS

Ready, Willing and ABLE!

The future is bright for these cars . . . shown at the very beginning of their usefulness. Direct from the assembly line, they are headed for years of satisfying a part of America's needs.

Well equipped to do their share, they will carry maximum payloads for a long time. Providing no fears over the countless miles they will travel—they go forth with the very best of endorsements . . . manufactured by Pressed Steel Car Company, carbuilders for more than 50 years.

PRESSED STEEL CAR COMPANY, INC.

6 North Michigan Avenue, Chicago 2, Illinois

"That was an **expensive saving,** wasn't it?"

"What do you mean?"

"When that car was re-decked five years ago, we omitted pressure-treatment from the specifications because we didn't think we could afford the forty dollars that pressure-treatment would have cost."

"Well, we had to keep maintenance costs down."

"That's just the point . . . we don't keep maintenance costs down when we go in for expensive economies. But, can we afford *not* to invest forty dollars more in pressure-treatment with a life expectancy of three or four times what we're getting now with untreated lumber? Now we have to pay for another re-decking job that pressure-treatment would have eliminated by giving us ten more years of service. That would have paid for the forty dollars a number of times over."

"That looks like sound logic to me. We'll have to stop thinking of pressure-treatment as a cost . . . it's really an investment *that pays dividends."*

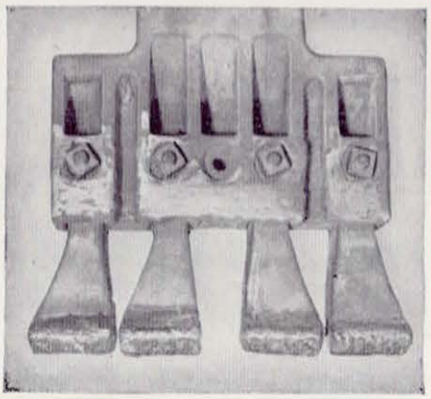
• • •

Discussions like these have led the way to tremendous savings in operations. Can we help you examine all possibilities for economies through pressure-treatment, by making an analysis and report on your rolling stock and shop practice? Write, wire or phone R. H. Bescher, Manager, Technical Department, Orrville, Ohio.

KOPPERS **PRESSURE-TREATED WOOD**

KOPPERS COMPANY, INC., Pittsburgh 19, Pa.

Fully worn bar (center) shows extent of deterioration prior to shop build-up and hardfacing. Outer bars shown have been hardfaced. Reclamation of these tamper bars is effected for a fraction of the cost of new bars.



Close-up of hardfaced bars and shoes ready for service.

One man, one holder, and Airco No. 361 electrodes can handle the build-up operation.

SAVE ON TAMPER BAR AND SHOE REPAIR with Airco Hardfacing Alloys

Maintenance-of-way personnel are all too familiar with the condition of tamper bars after the continuous shock of beating coarse-hard aggregate to pack in track ballast.

Many roads have found a way to economically extend tamper bar and shoe service life with Air Reduction hardfacing electrodes. Here's how.

A routine build-up program using Airco No. 361 electrodes brings the worn parts back to size. Following the size build-up, Airco Tungtube No. 20 electrodes provide a hardfaced surface which lasts two to three times longer in service than untreated bars. These road-tested Airco electrodes are your guarantee of sound hard-metal deposits at minimum cost.

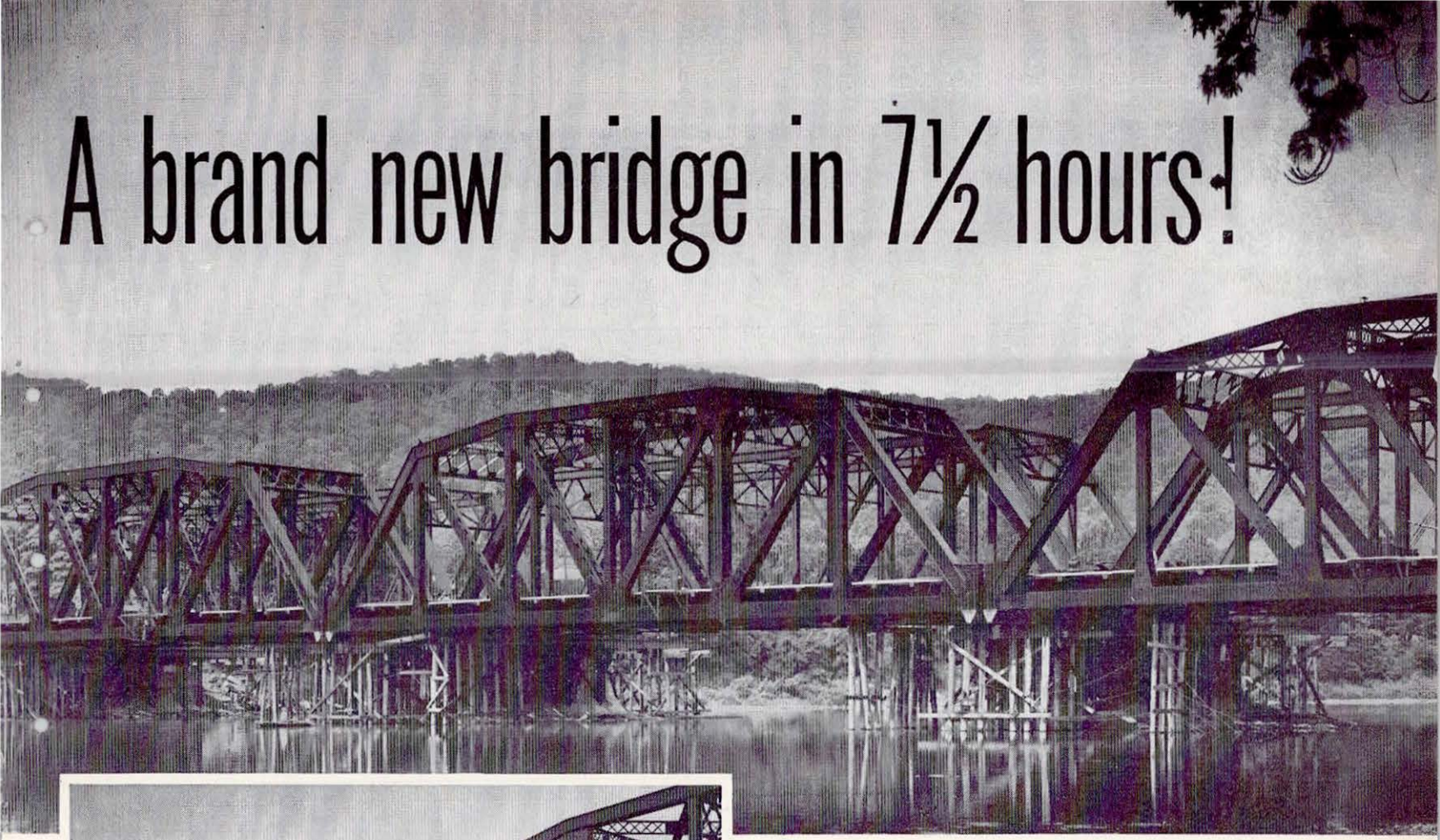
You can learn how Airco Hardfacing techniques can effect savings for your maintenance-of-way abrasion and impact resistant operations. An experienced Airco Railroad Representative is ready to supply you the full details. Just write him at your nearest Airco Office.

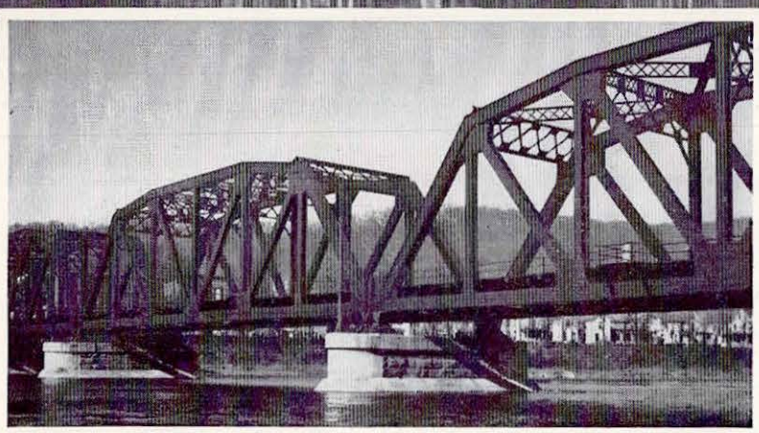
AIRCO® **AIR REDUCTION**

AIR REDUCTION SALES COMPANY · AIR REDUCTION MAGNOLIA COMPANY
AIR REDUCTION PACIFIC COMPANY
REPRESENTED INTERNATIONALLY BY AIRCO COMPANY INTERNATIONAL
Divisions of Air Reduction Company, Incorporated
Offices in Principal Cities

at the frontiers of progress you'll find AN AIR REDUCTION PRODUCT

A brand new bridge in 7½ hours!





LARGE PHOTOGRAPH at top shows the new bridge on falsework alongside the old bridge. Falsework for the old bridge can be seen on the opposite side of the piers. Directly above is view of new bridge after removal of old bridge and all falsework.

NEW BRIDGE is in position on piers. Old bridge is on falsework.

CLEAR TRACK AHEAD! Job completed, the bridge is open for traffic.

The structure was designed by the Pennsylvania Railroad Company. Fabrication, erection and removal of the old span was by American Bridge.

AVAILABLE NOW! For showing in churches, schools, clubs and industries, the new sound and color motion picture—BUILDING FOR THE NATIONS—a candid, factual photographic record in full color of the highlights of the fabrication and erection of the United Nations' Secretariat Building in New York City.

How novel use of the "double shift" speeded erection of Pennsy's new triple-span bridge over the Allegheny River

PENNSYLVANIA RAILROAD'S new double track bridge over the Allegheny River at Warren, Pa., is another example of American Bridge ingenuity. In this case, an old bridge was replaced by a modern structure on the existing piers with a minimum of traffic interruption.

The project involved the erection of three double-track, thru truss spans, each 154'6" long and 33' c.c. of trusses, on falsework adjacent to the existing piers, simultaneously rolling the old structure off these piers onto similar falsework, and the 2,200-ton steel superstructure with its ties, rails, timbers and pipe railing into position on the original piers.

The amazing "double shift" transposition was completed—all six spans simultaneously—rails connected, and the new bridge opened for trains after a traffic interruption of only 7½ hours!

Jobs like this, and the more recent one for the Illinois Central at Cairo, explain why so many railroads rely upon the know-how, the facilities, and the experience of American Bridge to handle the most difficult construction problems.

AMERICAN BRIDGE DIVISION, UNITED STATES STEEL COMPANY
GENERAL OFFICES: 525 WILLIAM PENN PLACE, PITTSBURGH, PA.
Contracting Offices in: AMBRIDGE · ATLANTA · BALTIMORE · BIRMINGHAM · BOSTON · CHICAGO
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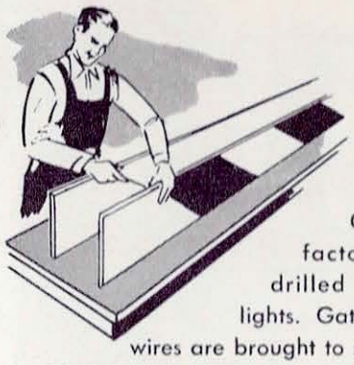
USS TRADE MARK

AMERICAN BRIDGE

UNITED STATES STEEL

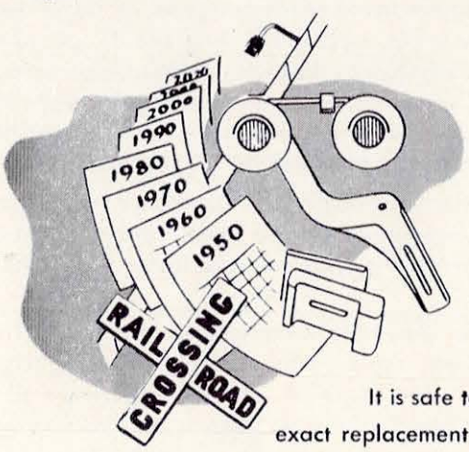
MODEL 10 *automatic signals*

"Top Rated" by the men who *specify* them . . . *install* them . . . *maintain* them



Gate arms are factory wired and drilled for mounting lights. Gate arm light unit wires are brought to special terminal blocks. Light units can be mounted and connected in a few minutes, without special tools.

Model 10 units are **furnished complete.** No time is wasted at point of installation, making units fit, or doing unexpected wiring. Flashing light units are shipped complete with hoods and backgrounds assembled, each in a carton.



It is safe to say that exact replacement parts for WRRS Model 10's will be available always — 10, 20, 30, or 50 years from now.

WRITE FOR BULLETIN 748-RA11

Talk to any of the men who have a hand in grade crossing safety. They'll tell you plenty of reasons why they prefer Model 10 protection.

Officials will cite the unrivaled safety record set by thousands of Model 10's guarding busy railroad-highway crossings in America and in foreign countries: *not a single accident has ever occurred as a result of operation failure on the part of these signals.*

Field men who install Model 10's like the fact that WRRS makes the job easy. Factory assembly of components, and intelligent packaging of units save time — speed installation to completion.

Maintenance men praise Model 10's trouble-free, all weather operation, easy inspection and servicing. Replacement parts readily obtainable, are precise duplicates of originals. They fit perfectly.

Wherever You Go

Model 10's are rated "first" by the men concerned with "safety first."

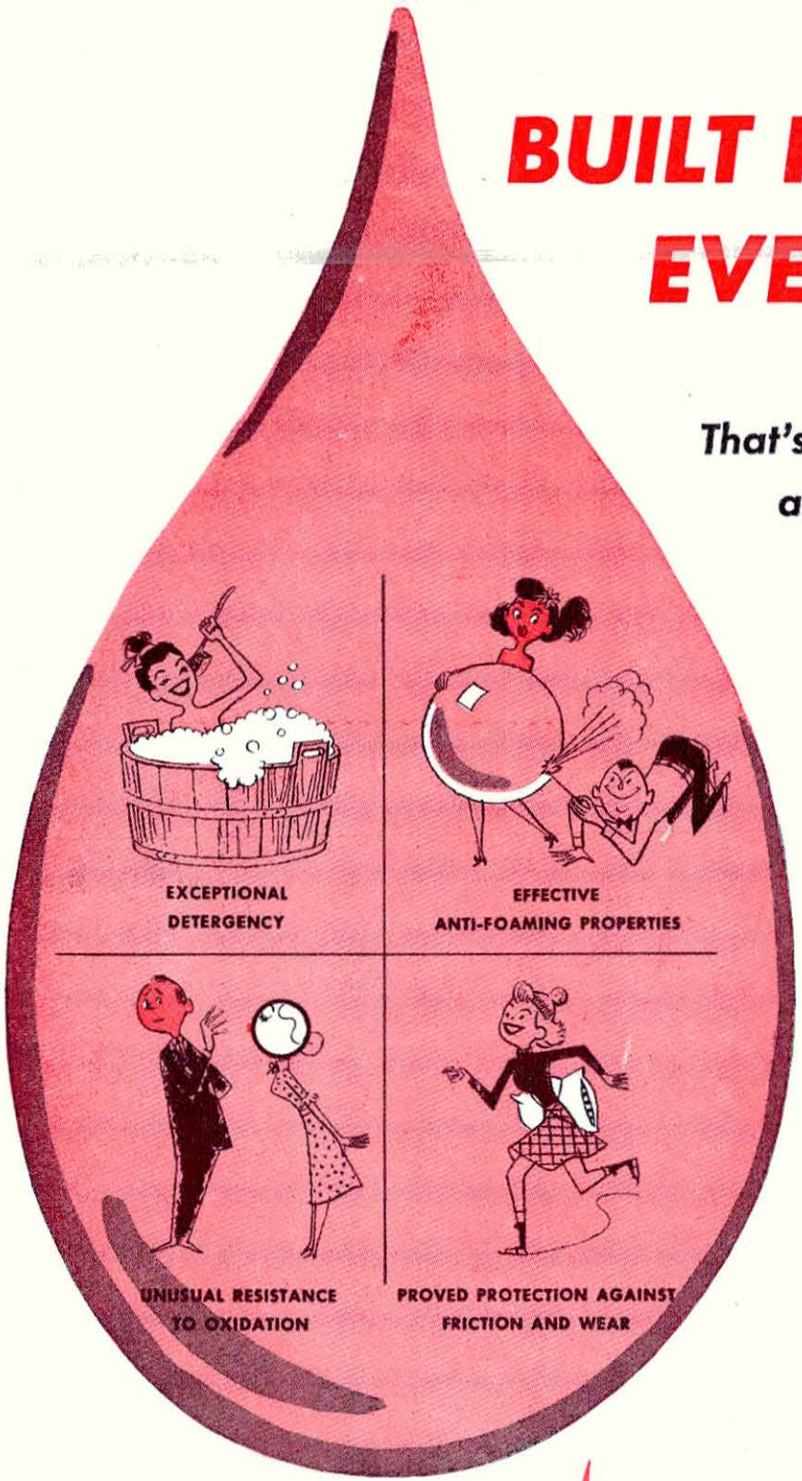
WESTERN RAILROAD SUPPLY CO.
2428 S. Ashland Ave., Chicago 8, Illinois

Model 10

AUTOMATIC GRADE CROSSING SIGNALS
PRODUCT OF
WESTERN RAILROAD SUPPLY COMPANY
CHICAGO 8, ILLINOIS

LEADING MANUFACTURER OF GRADE CROSSING SAFETY DEVICES—MAKER OF RAILWAY SIGNALING ACCESSORIES

BUILT INTO EVERY DROP!



That's why Gargoyle Diesel oils are unsurpassed in quality!

Yes, today's Gargoyle Diesel lubricating oils embody every known property necessary to keep your Diesels running at peak efficiency!

We worked closely with builders and operators for many years to develop these oils—conducting endless laboratory tests, making exhaustive field evaluations, constantly exchanging findings. The result is Diesel lubricating oils that are giving outstanding performance on major roads from coast to coast!

Why not use our research facilities, products and experience to improve *your* Diesel operations?

Railroad Lubricants

SOCONY-VACUUM

Correct Lubrication

WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

SOCONY-VACUUM OIL COMPANY, INC., RAILROAD DIVISION, 26 Broadway, New York 4, N. Y.

That's why the NEW HAVEN chose J-M TERRAFLEX Flooring for this diner

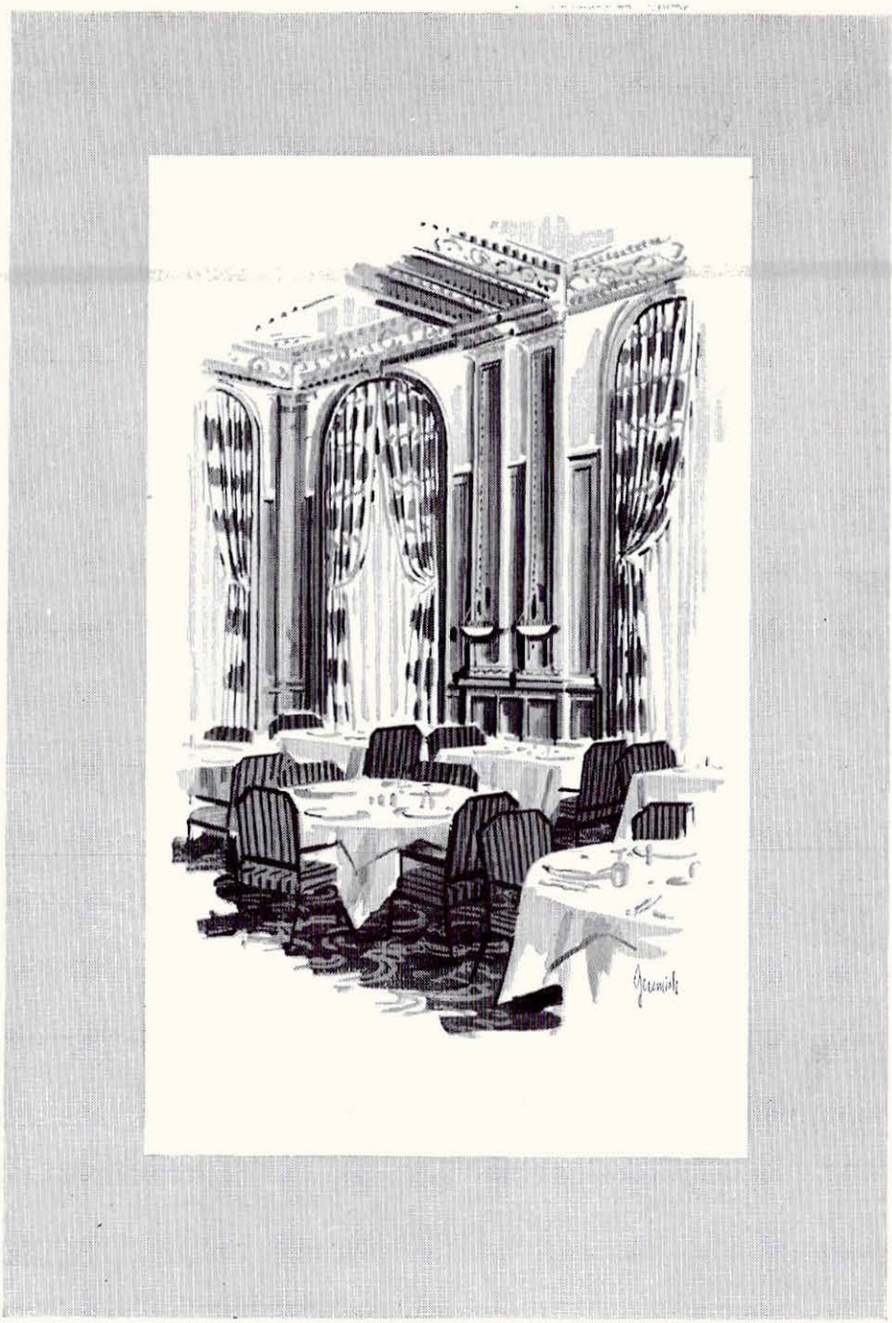
DESPITE the beauty of its vivid, clear colors, this dining car floor will never need coddling. It will resist the hardest wear . . . is unaffected by grease, oil and mild acids. It is easy to clean, and even caustic soaps, which often damage other types of resilient flooring, cannot harm it.

That's because Terraflex is made of tough, flexible vinyl plastic, fortified with strong asbestos fibers. This results in a flooring that is both resilient and extremely durable —with colors that are clearer, brighter than ever obtained in a flooring of its type.

Terraflex is highly fire-resistant and will not support combustion. And because of its superior flexibility, it does not crack, curl, become loose or brittle, or shrink around the edges. Moreover, it will not lose its sheen from constant wear.

The wide range of marbleized colors available in harmonious and contrasting shades offers unlimited design possibilities with Terraflex for railroad cars. For further details on how Terraflex will help solve your passenger car flooring problem, write to Johns-Manville, Box 60, New York 16, N. Y.

JOHNS-MANVILLE JM PRODUCTS **Johns-Manville** 94 YEARS OF SERVICE TO TRANSPORTATION



Green Room
Hotel DuPont
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Famous names in famous places. Famous hotels from one end of the country to the other use famous Simtex napery. As part of impeccable service, American-made Simtex napery is a must on the menu every day. It's a resource that's dependable. It's a napery that's always fresh, always gleaming, due to the exclusive patented Basco finish.

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DIVISION OF SIMMONS COMPANY, MAKERS OF THE FAMOUS BEAUTYREST MATTRESS

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ride the "Honeymoon Route" with Lehigh Valley's BLACK DIAMOND

Running between New York and Buffalo—the "Honeymoon Route" to Niagara Falls—the Lehigh Valley's BLACK DIAMOND had steam heat, extension vestibules, and real Pintsch gas-lights. In 1898 that made it one of the finest trains in the land.

Today, it is still one of the finest—but for far different reasons. Among these is a powerful Diesel engine with many vital parts of alloy steel.

On crack Diesels like the BLACK DIAMOND you will find that the engine-block base, the crankshaft, the connecting rods and piston pins, the gears and pinions, and many other vital parts are made of alloy steels containing chromium, vanadium, silicon and other alloying elements.

Each of these alloy steels is designed to give the fatigue strength, the impact resistance and the wear resistance that solve today's Diesel design problems.

Find out how alloy steels can solve your Diesel design problems. Write or call your nearest Vanadium Corporation office today.

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Pittsburgh's Hot-Spray CARHIDE

The Two-in-one Freight Car Paint!

Provides twice as much paint in one application . . . Increases paint shop capacity . . . Keeps equipment on the haul for more pay hours

YOU'LL get more pay hours from your freight rolling stock when you paint them with Pittsburgh's Hot-Spray CARHIDE. This latest development in famous CARHIDE railway finishes provides the equivalent of *two coats of paint applied cold with a single application* . . . puts cars into service more quickly . . . keeps them looking better longer.

● **In Hot-Spray CARHIDE,** heat is used in place of conventional thinners to adjust viscosity to weather and temperature conditions. No matter when you paint, this new type of coating goes on more uniformly, has better adhesion, dries quickly to a higher gloss, and gives you tougher, longer-lasting protection.

● **Hot-Spray CARHIDE** can be applied with approximately half the usual air pressure. This reduces the amount of "fog" in the paint shop—more of the solid material reaches the surface being painted. There is less paint sag—more paint is applied with less labor. As there is much less thinner to evaporate from the paint, imperfections from shrinkage are greatly decreased.

● **Refinishing is speeded** as half the time needed to apply two coats, as well as drying time between coats, is eliminated. Shop capacity is practically doubled without increasing space, manpower or equipment.

● **We'll be glad** to give you further details about this new labor-saving freight car paint. A wire, phone call or letter from you may save time and money in your shop, traffic and operating departments.

PITTSBURGH PLATE GLASS CO., Industrial Paint Div., Pittsburgh, Pa. Factories: Milwaukee, Wis.; Newark, N. J.; Springdale, Pa.; Atlanta, Ga.; Houston, Texas; Los Angeles, Calif.; Portland, Ore. Ditzler Color Div., Detroit, Michigan. The Thresher Paint & Varnish Co., Dayton, Ohio. Forbes Finishes Division, Cleveland, Ohio. M. B. Suydam Div., Pittsburgh, Pa.

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PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Lewis sealtite slotted head bolt

Engineered for use in all wood construction, especially running boards or wherever limited space makes wrench work difficult. *Available in Hot-Dip Galvanized—Sealed in Zinc finish . . . for Double-Life, greater economy.*

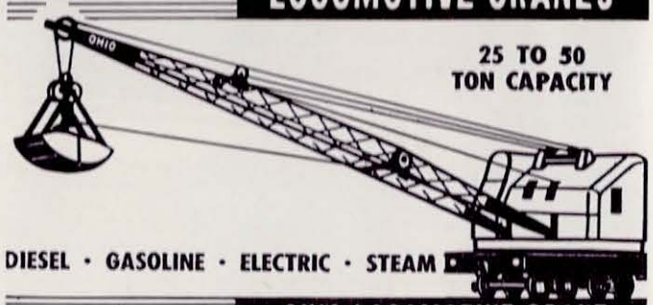
Cross section of head, from above, showing slot, bevel, shank. Bolt available with Loktite nut #2 (shown) or std. square and hexagon nuts.

See your Lewis representative, or contact factory for samples, prices, full details.

Lewis BOLT & NUT COMPANY
504 Malcolm Ave. S. E.
MINNEAPOLIS 14, MINNESOTA

LOOK FOR THIS STAMP OF U QUALITY

OHIO LOCOMOTIVE CRANES



25 TO 50 TON CAPACITY

DIESEL • GASOLINE • ELECTRIC • STEAM

THE OHIO LOCOMOTIVE CRANE CO.
BUCYRUS, OHIO

HYMAN-MICHAELS COMPANY

Relaying Rails ★★★ **Dismantling**

Used railroad equipment—cars—locomotives
Freight Car Replacement Parts

Complete stocks of guaranteed used freight car parts carried on hand by us at all times. Located conveniently for shipment to any part of the country. Write—Phone—Car or Track Dismantling, or Car Parts.

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Branches
Write—when interested in used Rails, Equipment, Cars,

St. Louis	Los Angeles	Havana, Cuba
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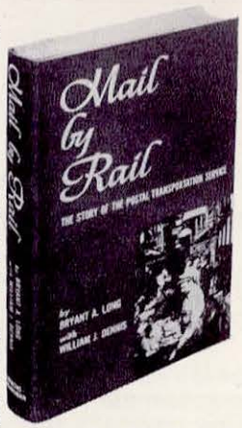
SERVICE	QUALITY	RELIABILITY

TAKES YOU INSIDE THE HEAD END'S "MYSTERY CAR"



MAIL BY RAIL tells you the little-known story of railroading in the mail cars . . . the lurching, colorful life of the railway mail clerk as he sorts your letters to intricate connections at mile-a-minute speeds!

You'll read of operations on the Santa Fe, the Pennsylvania and many others . . . even the old-time streetcar and interurban networks, as viewed from inside the Railway Post Office. You'll read of celebrated wrecks and robberies of famous mail trains, and a pack of the funniest railroad yarns you've ever laid your eyes on.

There are unusual railroad photos, nearly 30 of them, and lists of every railway mail run in America, Canada, and Britain. You'll even find a full chapter on British routes; another on Canada and other lands; a third on trolley and electric lines; and 13 others—written by mail clerks of the Postal Transportation Service. Order your copy now!
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Send me the 426-page book MAIL BY RAIL for examination.

I will either return it within five days without obligation, or keep it and remit $4.95 plus a few cents postage.

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RAILROAD EQUIPMENT
CARS—LOCOMOTIVES
REPAIR PARTS

RELAYING RAILS

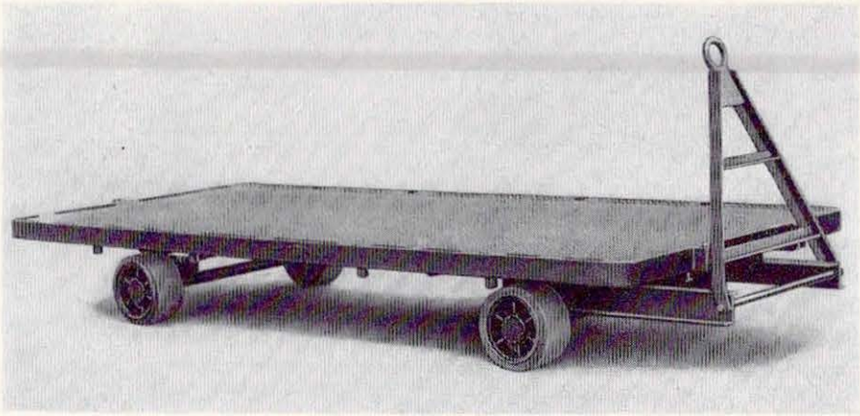
STEEL STORAGE TANKS
6000—8000—10000 gal. cap.
CLEANED AND TESTED

THE PURDY COMPANY
8754 S. Dobson Avenue Chicago 19, Illinois

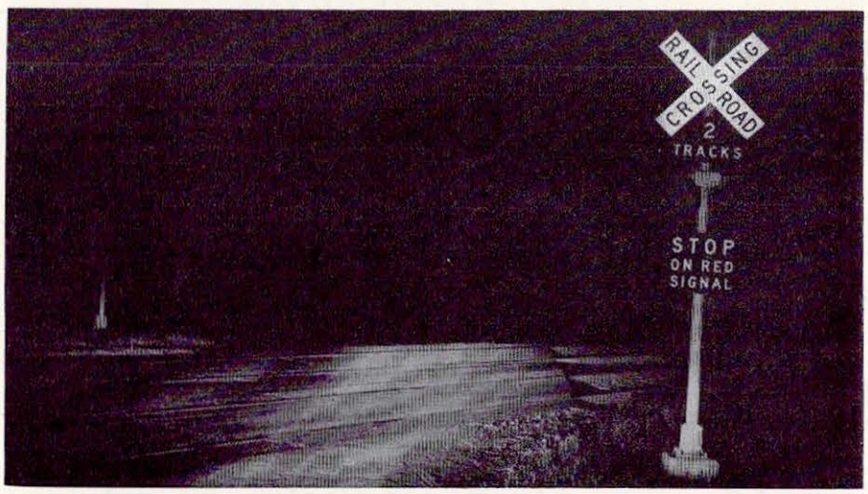
RAILROAD FACTS

For transporting almost 16 and a half billion pieces of first class mail in 1951 the railroads received $3,536,546 less than the air mail carriers were paid for carrying slightly more than one billion letters and cards.

Ties 9-52



A new all-steel welded trailer of 20,000 lb. load capacity rating has been put on the market by the Mercury Manufacturing Company, 4044 South Halsted street, Chicago 9. The Model A-614-10B is seven feet wide and 14 feet long. Deck height is 22½ in. Wheels are Timken-bearing mounted. Tires are of the pressed-on solid rubber type. The rear has a type "C" safety coupler.



Reflective Signs

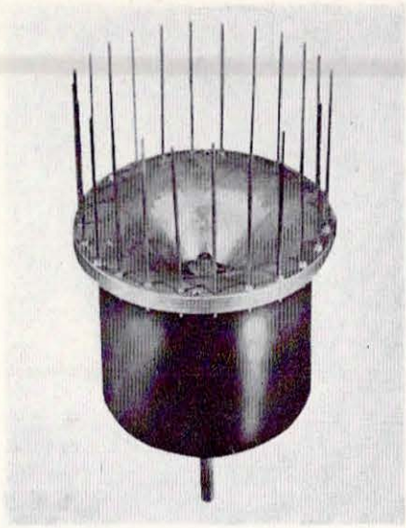
Highway crossing signal signs of "Scotchlite" material can now be obtained from Union Switch & Signal Division of Westinghouse Air Brake Company. In the headlight beams of approaching highway vehicles, they reflect their warning messages brilliantly and unmistakably. By day, they look exactly like the standard signs. "Scotchlite," made by the Minnesota Mining & Manufacturing Co., is a thin, flexible sheeting, having its surface coated with millions of microscopic "lenses," each of which is a sphere. These "lenses" are permanently bonded to the surface. When light strikes the reflective material, the "lenses" break up the light into thousands of smaller beams. These are reflected directly back to the source of the light, producing a glareless brilliance many times brighter than the best white painted surface.

The signs are permanent and vandal proof, lasting for years with minimum maintenance. They are available with "Stop On Red Signal" lettering, with number-of-track designations, such as "2 tracks," and as standard "Rail Road Crossing" crossbucks. The "Scotchlite" reflective material can be specified at the time new highway crossing signals are ordered, or the signs can be ordered for application to existing assemblies.

Black Asphalt Undercoating

The coating, a sprayable material called EC 1189, is designed to protect underbody parts of transportation equipment from corrosion and abrasion and for sound deadening. For corrosion and abrasion control, it can be used to protect the exteriors of storage tanks, tank trucks, and railroad cars against spillage and water and soil. It will also protect the exteriors of railroad signal bungalows and the bottoms of outdoor switchgear housings. For sound deadening, the formulation can be used on the interior panels of trucks and railroad cars.

Made by the Minnesota Mining & Manufacturing Co., Detroit 2, it will adhere to most materials and surfaces. When sprayed or brushed to ⅛ in. thickness, it dries in about 48 hr. to form a tough, rubbery surface.

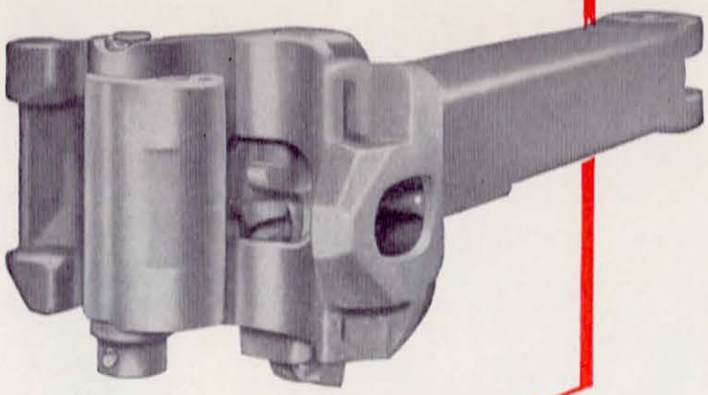


Switch Heater Control

Motorola, Inc., Chicago, has announced the development of a "weather sensing" unit, the Snow Detector. This device, designed primarily for the deicing of microwave antennas, has numerous applications. The most recent is in the railroad industry where the unit is used to control electric heaters for rail switches.

The unit, 7¼ in. in diameter, detects precipitation when the ambient temperature drops below 37 deg. F. (the normal borderline temperature for snow). An integral heater melts the snow and ice collected in the "bowl." No power is consumed either by the detector or by heaters at higher temperatures. Vertical rods around the edge of the unit prevent birds from nesting in the detector.

Fully automatic, the detector will turn on heating elements whenever icing conditions exist. Current values up to 30 amp. at 117 volts a.c. can be switched without external relays. The heaters will then remain on until the icing hazard is past, being automatically turned off by the detector.



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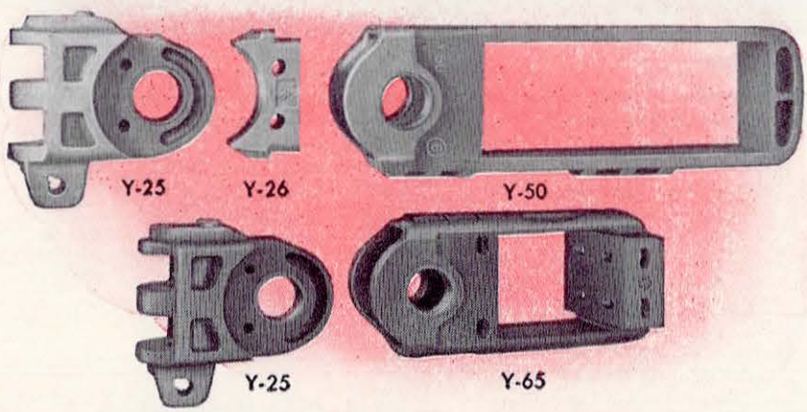

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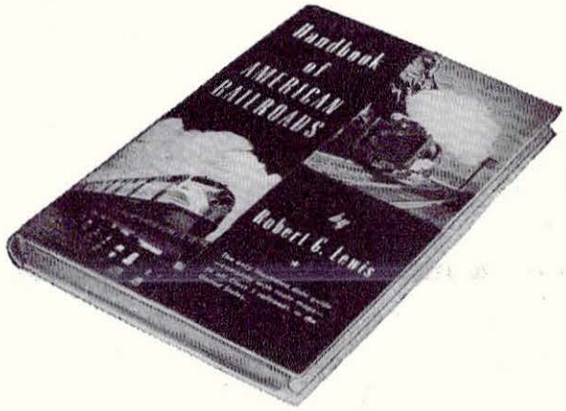

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Benchmarks and Yardsticks

THE WRITER OF THESE LINES is a perennial, fare-paying train rider—and the outstanding impression of his experience is the unpredictable character of the service. Most of the time it is good—or, at least, reasonably satisfactory, but sometimes it isn't. There isn't anything of the uniformity of high-level dependability that one usually gets, for instance, from most electric or telephone companies.

And it is in the so-called "little things" where the failures usually occur, when they do. A coach that has been poorly cleaned, or not cleaned at all. Or a car leaving its initial terminal with air-conditioning apparatus not working, or with broken seats or inoperative wash-room facilities.

But, of all unevenness in passenger service, none is so noticeable as the behavior of the train crews—the quality of which usually is traceable to the adequacy or inadequacy of the conductor in charge.

One conductor we frequently see is a master of his job. Uniformly courteous, he doesn't go to the extreme of permitting obstreperous passengers to make nuisances of themselves. Tolerance of such people by train crews makes a vice of the virtue of easy-going courtesy. This conductor keeps the obstreperous under control, but without losing his temper or using measures or language any stronger than absolutely necessary to accomplish the purpose. When the train is stopped, the conductor makes sure that it is properly flagged, and the trainmen working under him get the traps opened at the stations—not leaving that responsibility to the passengers.

On the same line of the same railroad, there is another conductor who is the antithesis of the one we've mentioned. This one pays no attention to whether the trainmen are performing their duties or not. He is insulting in his answers to courteous questions from passengers—whom he apparently expects to know as much about the railroad as he does himself. The key to getting along with this man is to pay him off in his own coin—those passengers who treat him as roughly as he does them find him, at heart, not a bad fellow—just a rough diamond, and they like him. But most passengers don't have the advantage of this knowledge, and they deeply resent his attitude.

Is it not a fair conclusion that unevenness in service—with quality apparently depending entirely on the natural inclinations of the individual conductor—is an indicator of inadequacy in the supervisors, or perhaps of an insufficient quantity of supervision?

J. G. L.

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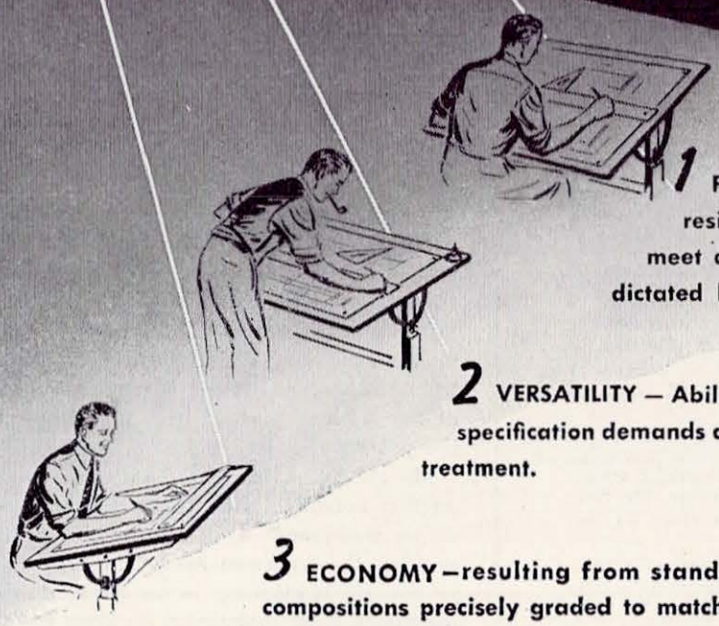

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WILL THE ELECTION BRING ANY CHANGE IN TRANSPORTATION?

The Conservative government which has been in power in Great Britain for the past year has certainly accomplished nothing spectacular in reversing the tide of socialization which had pretty well engulfed that unfortunate country under the preceding regime. Will the Republicans in this country, now that they've got the power they've been striving to regain for two decades, be any more successful in this direction than Mr. Churchill and his colleagues have been?

Hinge of the Future

Upon the answer to that question probably hinges the future of the railroad industry, because socialization with 20 years of forward momentum isn't going to be stopped by alleged opponents who don't march, but only passively mark time. If General Eisenhowever and his associates have any positive program for reversing the socialization trend in the area where the threat is greatest and most imminent—transportation—then they've not revealed it yet. The only prudent assumption on the part of those who are aware of the existing crisis is that the General and his associates are largely unfamiliar with the situation, and are unlikely to do anything to correct it unless its reality and gravity are forcefully and repeatedly presented to them.

The outgoing administration in Washington has not, on the whole, been unfriendly to the railroads, nor was that of the administration of President Roosevelt which preceded it. President Truman, when he was in the Senate, showed some interest in constructive transportation legislation—at least to the extent that such activity did not go counter to the desires of the labor organizations. The railroads have, all along, maintained working contact and a large degree of mutual understanding with the executive department of government. The industry has, of course, suffered some attacks from the executive arm—notably from the attorney general's department—but what large area of business has escaped some equivalent measure of persecution from that direction?

The railroads, in short, do not have much to complain of on the score of active opposition by government during the past twenty years. Their grievance lies, rather, in the fact that governmental relations toward transportation have drifted into a state approaching chaos, with little or no initiative from the administration toward correction. The doctor cannot be accused of malfeasance, though an indictment for non-feasance would be hard to shake off. But, so far, there's no assurance that the Republicans intended to do any better.

Needed—Enlightened Leadership

Such realization as exists in government of the crisis in transportation and the necessity for action in protection of the public interest will be found, largely, in the legislative arm—and especially in the appropriate legislative committees (not forgetting the Interstate Commerce Commission, of course). But the comparatively few legislative leaders who know the score have to overcome a disheartening mass of inertia, born of indifference and ignorance. Enlightened leadership from the administration side would be a tremendous help to these legislators. If all the transportation people who have potential contacts with the new administration—and other branches of government—were fully informed and articulate on all phases of governmental relations to trans-

portation, wouldn't it be likely that they might be able to convince the new administration that remedial action in this area should be placed high on its priority list?

Just what is there that the railroads need more acutely, right now, than 1,000 or more men scattered throughout the country who are fully informed on all aspects of this situation and can tell the story convincingly—not in terms of their own interest, but in that of the public welfare? Nobody can sell or even give away an article or an argument which he doesn't, first, have in his possession as his own property.

An acquaintance of ours—a business statesman, if anyone in the country deserves such a designation—offers his opinion that the hour is about to strike for the railroads.

The external circumstances are shortly going to be more favorable for definitive action, probably, than at any time since 1933. But most of the initiative and determination and effort will have to originate with the railroads and their friends. The alternative, in our friend's opinion, will be an indefinite continuation of traffic erosion—and an early beginning of the process of socializing hard-up railroads, just as a large part of urban transit has already been socialized.

LET'S CULTIVATE THE GRASS ROOTS

"It seems to me," says the writer of a letter recently received by *Railway Age*, "that with some exceptions, railways generally miss the boat in public relations with people who are supposed to patronize them. Few companies will pay dues to local chambers of commerce or have railway speakers available to talk to local civic clubs."

We don't know exactly what railroads our friend may have in mind. Some hesitancy to join local commercial organizations would be understandable, since affiliating with several such organizations might make it pretty hard to avoid joining all of them along a railroad's lines. The expenditure for dues alone would run into a lot of money.

But why should a railroad hold back in making railway speakers available to local civic or service clubs? Certainly many if not most railroads are eagerly looking for such opportunities. Surely, almost any railroad of any size should have among its supervisory personnel, its traffic representatives, or its attorneys, a dozen or a score of men who, with very little preparation, could make an acceptable speech.

To be sure, audiences at these affairs are often small. But so are the time, effort and expense of reaching them. And the men who comprise such audiences are, by and large, leaders of opinion in their respective communities; in many cases their influence with legislators and with congressmen is out of all proportion to their economic or social importance. Worth consideration, too, is the fact that an address to a small-town service club almost always merits a half-column, or more, in the local newspaper.

The job of selling the railroads cannot be done entirely by railroad presidents speaking to audiences composed of top executives of big corporations. Let's cultivate the grass roots, too!

INTERNAL IMPROVEMENTS ARE NEEDED TOO

This paper gets a good deal of advice—from railroad men as well as shippers and other sympathetic "outsiders"—to the effect that the railroads are overemphasizing the improvement to be expected in their situation from the attainment of less restrictive regulation and from increased charges for the use of public property by their competitors. These critics insist that there are a great many things the railroads could do, right now, to improve their competitive position—such, for instance, as more realistic rate-making (along the lines suggested by W. K. Tate, *Railway Age*, October 6, page 90) and faster and more dependable schedules. These critics further contend that the discussion of improvements to the external environment distracts industry attention from internal betterments which would be more productive.

Not very many railroad men that we know of would maintain that the railroads need improvement only in their *external* conditions; practically all of them would agree that *internal* change is needed, too. The point is that no amount of internal improvement can compensate for a regulatory and political environment that will take away an extra dollar or an extra ton of traffic just as fast as internal improvements can produce them. Just look at the way the enormous savings from dieselization have been dissipated in the slowness of rate adjustments and in the enforced continuance of red-ink services.

The problem of getting the railroad industry comfortably solvent isn't one of *either/or*—improving *external* conditions *versus* improved *internal* performance. Rather the answer is two-sided. Both the internal and external improvements are required—just as a pair of trousers, to be serviceable, needs legs as well as a seat. Equipped with the seat alone or the legs alone, the pants can't be worn—at least, not to any good effect.

EXPECTING A MOVE?

Because *Railway Age* is published weekly, mailing labels must go to the printer well in advance. It takes up to three weeks, therefore, to effect a change in your address. If you expect to move and can advise us in advance, it will help us to insure you of continuity in receipt of your copy of the industry's news weekly.

RECIPROCITY IN TRAFFIC DOESN'T PAY

By HUEY G. HUHN

"Reciprocity" is a species of business dealing in the "twilight zone," where the normal influences of quality, service, background and price are shifted to a subordinate position. Among those railroad men and shippers who pursue the practice, it takes the form of "trading" freight routings for railroad purchases and *vice versa*.

Huey G. Huhn, who retired as general traffic manager of the Libbey-Owens-Ford Glass Company at Toledo in 1950, tells why he believes both parties in deals of this type are hurting themselves. He also drops a hint as to how either party can meet preferred "deals" diplomatically.

Since retiring, Mr. Huhn has been writing articles on a wide range of business topics—including a critique of the government's campaign against basing point pricing and the value of closer inventory controls.

There are no lasting good effects to either buyer or seller when the exchange of goods or services, or both, pivots on so-called "reciprocity." At best this application of *pressure*—and reciprocity is only that, even with those believing themselves highly skilled in handling the operation—may be termed back-scratching. Its closest relative is the barter system of exchanging goods or services. In a barter and exchange deal, equities can be balanced fairly well, since the area of itch can be blue-printed and the amount of scratch specified. There is no way of achieving a balance on the scales of trade, however, in reciprocity selling and buying. Any temporary gains are more than offset by unseen immediate and long-range losses.

When a railroad diplomatically calls a traffic manager's attention to recent purchases from his concern the inference can only be that the traffic manager should look around for some extra routing via the buying railroad. The request is not put so bluntly, of course, but this is the general idea just the same.

The industrial traffic manager often holds the opinion, on his side, that the railroad bought goods because of a need, because they met specifications, because the price was right, etc.—though, of course, he cannot say so. If, in his opinion, he is already "doing well" by the railroad in question he will not be over-anxious about making any worthwhile increase.

It's Better to Sell

The railroad salesman who introduced the issue of purchases could have made a much better impression by spending his time selling his railroad and its services.

When the traffic manager of an industry brings out the reciprocity pincers, a lot of things happen. Often his own sales department calls for help. The salesmen may (with or without cause) feel that, without the influence of the weight of the traffic, they may not succeed in their sales effort on the merits of the goods offered and the price thereon.

If the traffic manager will ask that the goods be considered on their merits and assure the railroad that, in such an event, win or lose, routings will be affected in no way, he will generally fully satisfy his own sales department and at the same time fully maintain his high standard of ethics and the good will of the carrier.

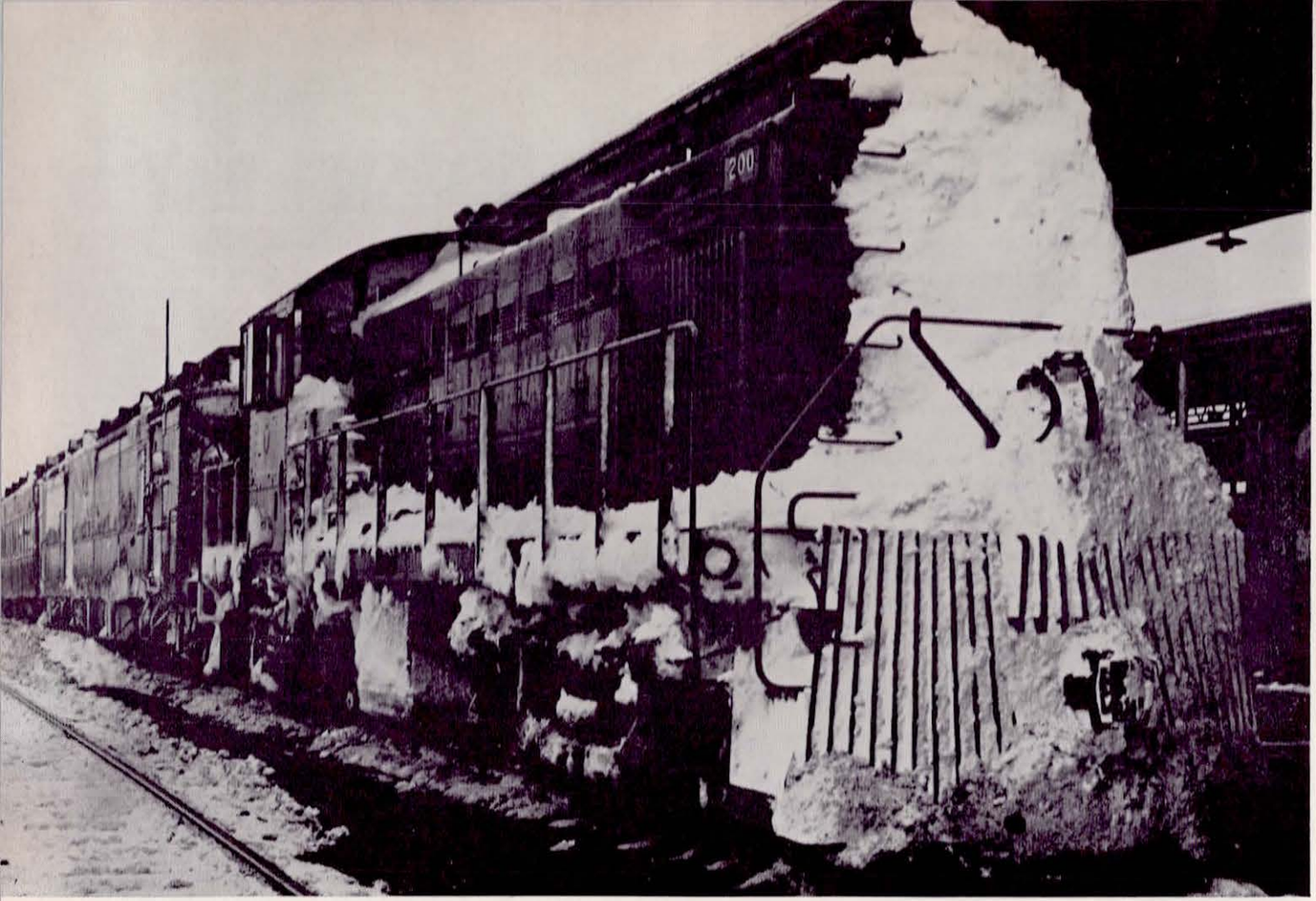
If the traffic manager puts on the reciprocity squeeze and the results are in line with his request, he has definitely weakened his own sales department in several ways. The salesman who got the order through traffic rather than sales effort on his own part has slipped a notch or two in his standing with the purchasing department. This may affect future orders. The salesman furthermore may let this easy sale affect adversely his efforts with other customers or prospects since he may be more and more inclined to have some one else exert influence for him, rather than to do his own selling job. Should his pay be on a commission or bonus basis, he gains financial benefits which he clearly did not earn. His fellow salesmen, not so fortunate, are not being helped when reciprocity touches the shoulder of only one or two. This leads to dissatisfaction.

When the *traffic manager* gets the order, the company has no way of telling what the sales department might have accomplished by itself. It might well have secured a larger order—under reciprocity the carrier may have been obliged to split its needs. The supplying of materials may also get down to a question of "whose turn" it is.

Purchasing departments must bear the brunt of reciprocity pressure. Here ways must be found to favor certain goods or people when good buying practices might dictate otherwise. The purchasing agent knows that where decisions are based on other factors than price, quality, service, advertising and salesmanship, a supplier lacking weight of reciprocity will be less inclined to make his best offers.

Two-Way Street

Fortunately more and more of our larger concerns, industrial and service, realize that reciprocity pressure can work two ways. They refrain from exerting the pressure and thus are better able to resist it when the operation is in reverse. Experience has demonstrated that it just is not possible to buy one way and sell another successfully. They realize that sales, traffic and purchasing operations are specialized operations and that the best results are secured only if these respective departments stand each on their own feet and not on some one else's toes.



In the days of steam, the Spokane International used to fear stalls in drifts and subsequent snowing in of the train.

Its nine diesels now settle down to a steady speed and pass through drifts without mishap.

Spokane International Nears Goal . . .

23.4 Per Cent Return on Diesels

By J. B. WILLIAMS

Superintendent of Motive Power

Now in its third year of complete dieselization, the Spokane International has paid $4 a share dividend on its common stock for 1951—a record for the road and an increase of $1.50 a share over 1950. We set our sights on 23.4 per cent return on our investment in diesel-electrics in 1949, and as we near that goal, we attribute a good deal of our increased profit margin to the savings we've effected with our new locomotives. The road netted approximately 17 per cent return on its investment in nine new diesel-electric locomotives during 1950—the first full year in which the new locomotives were in operation.

Our line, which operates 151 miles north from Spokane, Wash., to the international border point of Yahk, B.C., replaced its 13 steamers with nine diesel-electrics in the fall and winter of 1949 and reduced costs by $159,247 the following year.

Before September 30, 1949, 13 steam locomotives were used for motive power on the SI—an important link between the Canadian Pacific, at Yahk, and Spokane—where it makes connections with the Union Pacific, the Milwaukee, the Great Northern, the Northern Pacific and the Spokane, Portland & Seattle.

We made the first inquiry about diesel-electrics early in 1949 and closed an order for nine 1,000-hp. Alco-GE locomotives in April. Our housing and shop facilities were modified to handle the new locomotives during the summer and key personnel were sent to the Alco-GE locomotive school in Schenectady, N.Y.

Supervision Pays Dividends

During our short transition from steam to diesel-electric power, we conducted classes for both maintenance and operating personnel. Personal supervision is still being continued by our motive power superintendent, master mechanic and shop foreman. This supervision is paying dividends in more efficient operation and lower maintenance costs.

During 1949, when our line operated completely with

Nine diesel-electrics replace 13 steam locomotives on this 151-mile strategic link between the U.S. transcontinentals and Canada.

steam locomotives until the replacement began in September, locomotives traveled 346,315 revenue-miles in freight, passenger and switching operations, with a fuel cost of $174,028. In 1950, the diesels traveled 307,347 miles, with a fuel cost of only $63,942.

Not only were economies effected in fuel costs, but also in locomotive repairs and enginehouse expense:

	1950	1949	
Fuel	$63,941	$174,028	
Locomotive repairs	45,945	71,097	
Enginehouse expense	28,754	43,697	
Water	....	1,687	
Lubricants	3,162	9,201	
Other supplie:	1,356	2,695	
Total	$143,158	$302,405	
Less		*143,158*	
Saving			$159,247

On the basis of the $159,247 saving, we had a return of approximately 17 per cent on our investment of $959,400 in the new power. This saving is influenced by the fact that we had most of our diesels in operation by the end of 1949.

The cost of operation in that year is not truly representative of steam operation—particularly not in fuel—which would have been much higher, had not a sizable portion of the 1949 traffic been pulled by diesel-electrics.

Fighting Winter

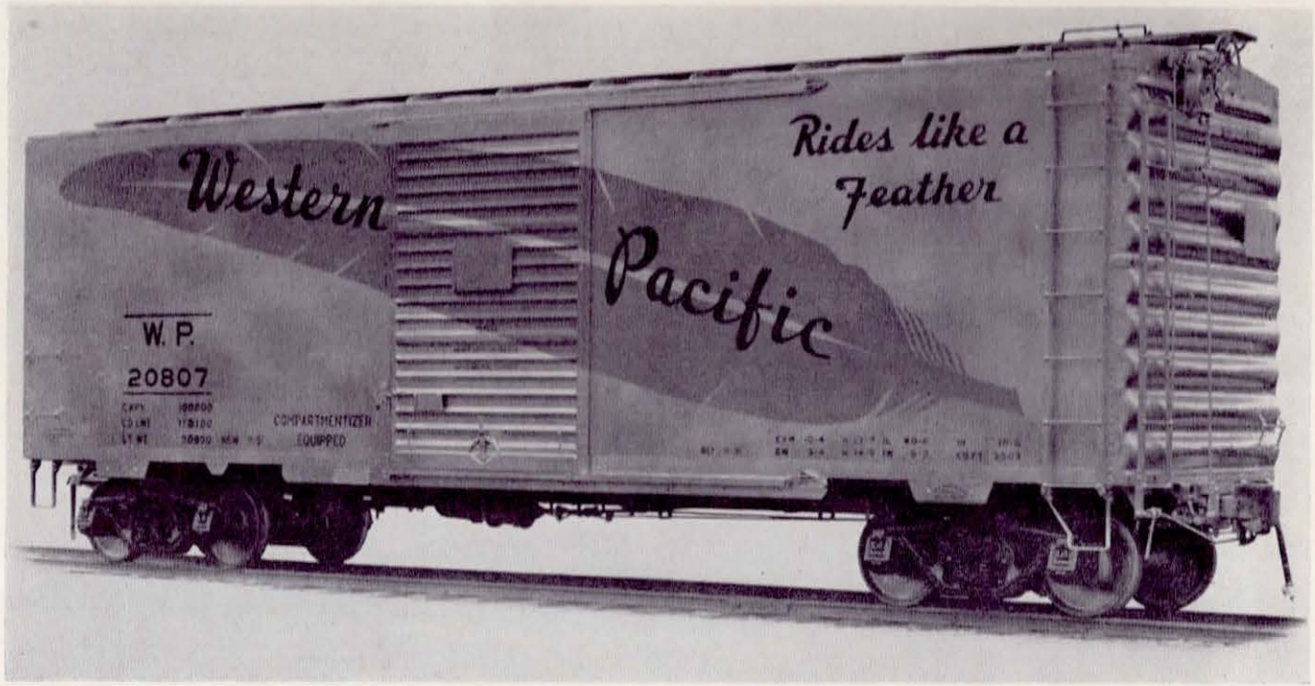
Many of our older people doubted the diesel-electrics' ability to operate under the adverse winter weather of the Pacific Northwest. Their doubts were dispelled during that first winter, when the diesel-electric performance far outclassed that of the old steamers in one of the worst winters in 52 years. The new diesels plowed through snow drifts 10 feet deep and a quarter of a mile long without the aid of plows. On some runs the new locomotives bucked two to three feet of snow for the entire 151-mile length of the road and experienced temperatures as low as 45 degrees below zero at Yahk.

I was concerned when one of the new diesels first encountered a long, deep drift. The locomotive hit the drift at 35 m.p.h. and immediately the speed began dropping rapidly. Thinking in terms of the old steam power, I had visions of stalling. When the latter happens in Washington state, the wind may whip snow between the cars, leaving the train in danger of being "plugged" for long periods. The diesel, however, settled down to a speed of about 12 m.p.h., and passed through the drift without mishap.

Of the many more advantages of dieselization becoming apparent each day, multiple-unit operation has made possible fewer train-miles per year for comparable annual tonnages.

Faster switching has reduced train make-up costs. Freight and passenger trains have maintained faster running times and a higher percentage of "on time" runs, even when deliveries from connections were late. Track and bridge repairs have been reduced because of the smoother tractive pull. High availability has been evidenced by the fact that only nine diesels replaced 13 steam locomotives.

As personnel become more familiar with diesel-electrics, we expect increased performance and lower operating costs. We are nearing our original estimate of a 23.4 per cent return on investment and hope to do even better as time goes on.



One of 39 Western Pacific box cars which are, or soon will be, equipped with Compartmentizers.

For the Western Pacific . . .

Another 20 Compartmentizer Cars

In addition to 20 Compartmentizer-equipped box cars, built by the Pullman-Standard Car Manufacturing Company and purchased by the Western Pacific just about a year ago, 20 additional box cars of recent design are being similarly equipped, making a total of 40 Compartmentizer cars on this road, less one destroyed in a tunnel fire last August.

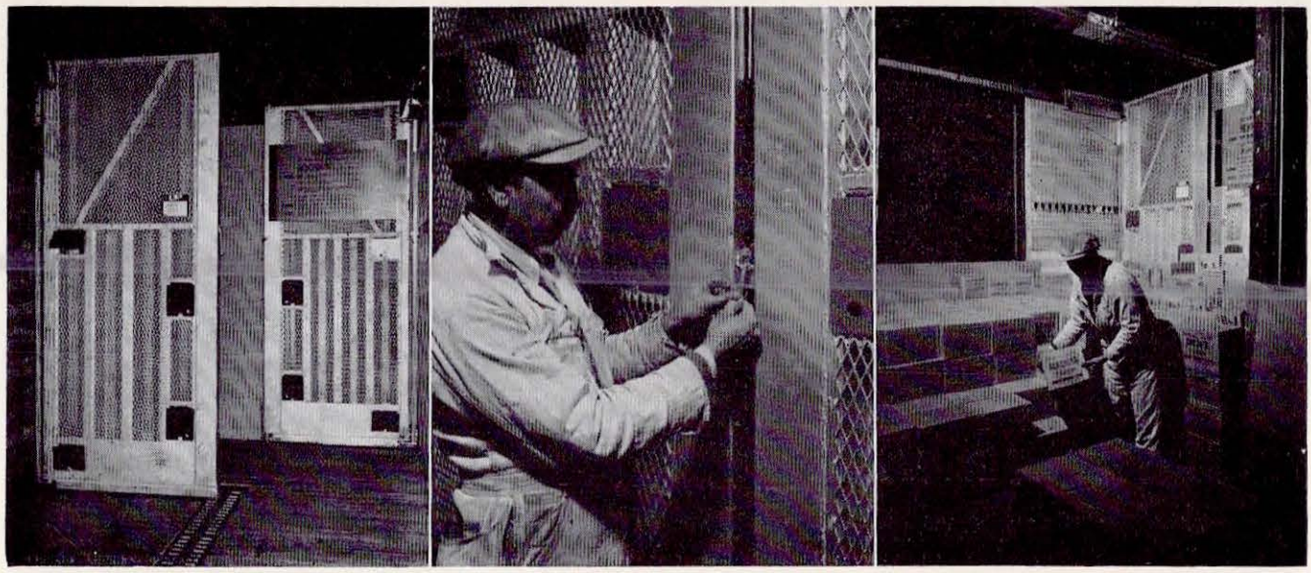
Exceptionally satisfactory results are reported with this special loading device which Pullman-Standard has developed and the Western Pacific is offering to shippers of canned goods, drugs, wines, liquors, household appliances and many other types of products for added protection of their goods during rail movement. This protection is afforded by means of two pairs of adjustable steel gates which may be locked against partial loads in each end of the car and leave the center compartment available for loading in the usual manner. Proper stowage and the sturdiness of the gates tend to prevent any shifting of the cargo in transit and damage claims are reported to be reduced 95 per cent on all materials handled in these cars.

Experience on the Western Pacific indicates that shippers also benefit in several other ways from the use of Compartmentizers. In the first place, it is estimated that savings up to $40 per car may be effected as compared with the usual methods of blocking and strapping fragile loads. Also, with three compartments, three distinct products or shipments can be loaded into one car, simplifying both loading and unloading. Shippers can thus take advantage of the carload rate and still have partial loads dropped off at destinations en route. Ordinarily this would require dunnage to replace goods removed from the car, but with adjustable steel gates to secure the rest of the load, this practice is no longer necessary.

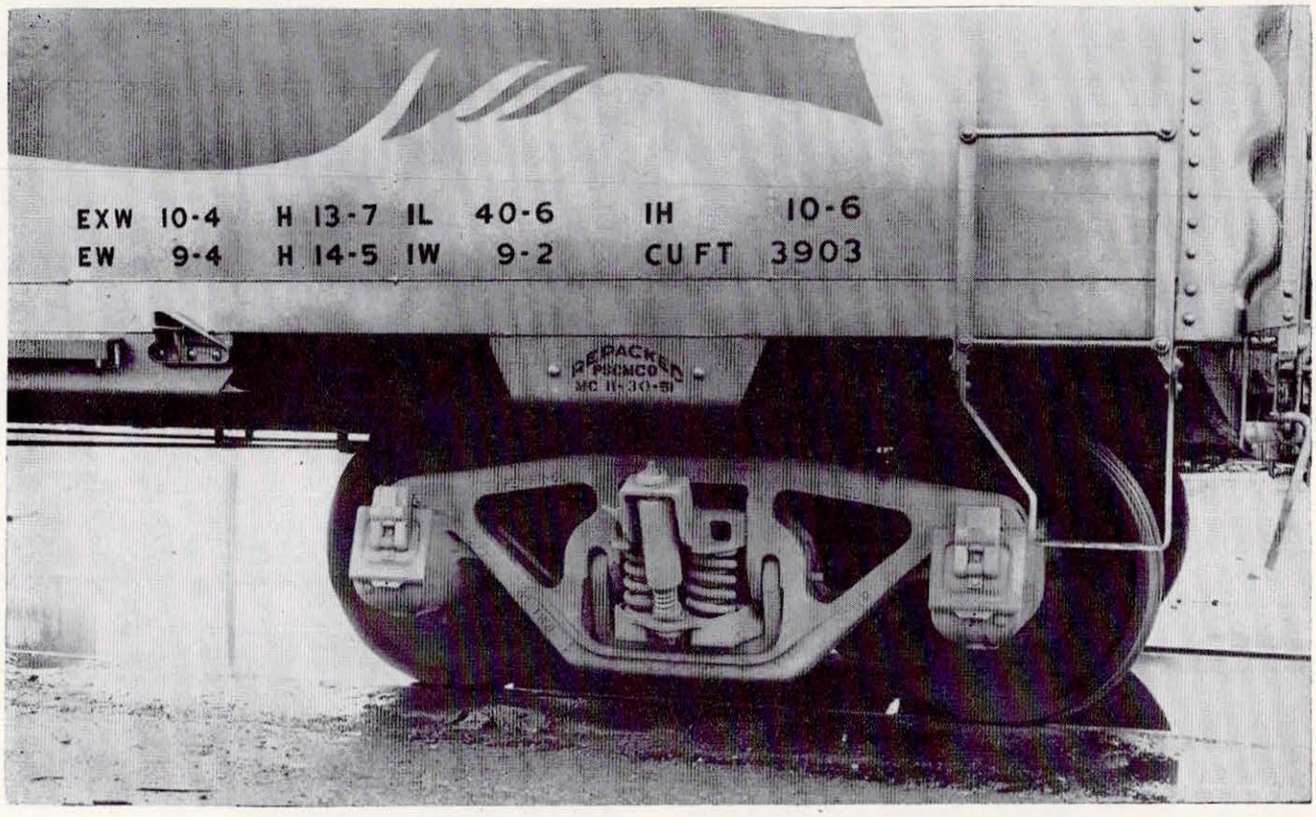
Compartmentizer cars apparently can be loaded and unloaded faster than conventional cars since no extra time is spent building bulkheads during loading or tearing them down when unloading. The gates are light enough in weight to be handled quickly and easily by one man.

Some Commodities Unsuitable

The Western Pacific reports that a few types of commodities are not suitable for shipment in Compartmentizer cars. For example, animal hides and some other commodities will contaminate the car; heavy machinery cannot be stacked and will place an uneven strain on the gates separating the compartments, causing damage to other merchandise and perhaps to the gates themselves; tin plate, casting pipe, bar and plate steel, and other such materials are generally too heavy per unit of space occupied for satisfactory shipment in this type of car.



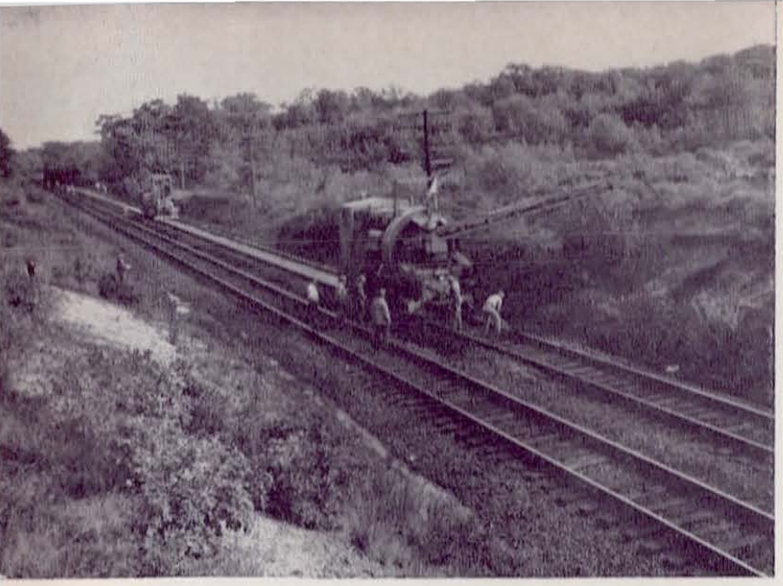
(Left) Easily adjustable Compartmentizer gates; (Center) Applying standard car-door seal; (Right) Loading the center compartment.



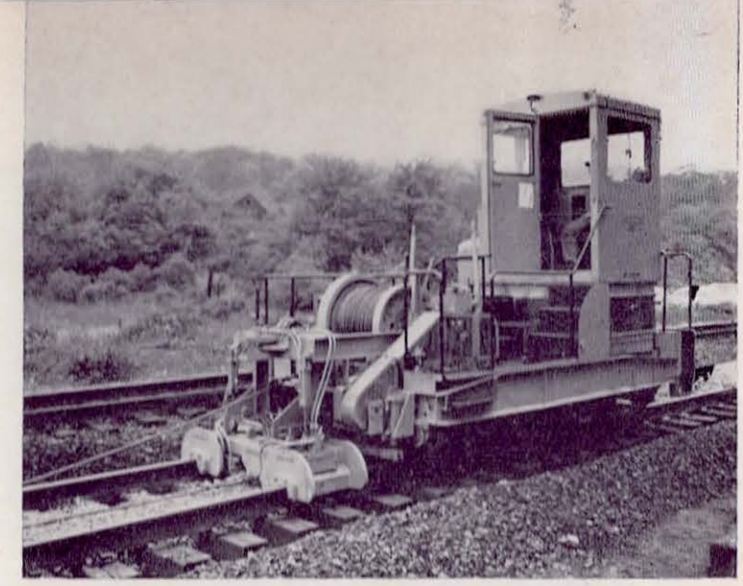
The Chrysler high-speed easy-riding truck was applied to the first 10 WP Compartmentizer cars.

The Compartmentizers, as applied in the new Western Pacific box cars, include a number of improvements and refinements which give approximately 30 per cent increase in strength and shock-absorbing capacity over the original design, as described in *Railway Age*, May 7, 1951, page 34. The movable gates have been strengthened by use of corrugated steel center cores and metal plate surfaces to prevent abrasion in contact with lading boxes or containers. The gate suspension has been strengthened at the top.

Retractable gate supports take the weight off suspension brackets in normal operation and thus relieve them of vertical shocks. Shields which cover the locking bars are arranged to give a clear indication whenever gates are not locked. Hooks have been added to lock gates against the side walls and prevent interference with trucks in loading or unloading. Floor centerplates in the new design are welded to the center sill and drilled for drainage; small removable end plates facilitate blowing or cleaning out the cavity after any bulk loading.

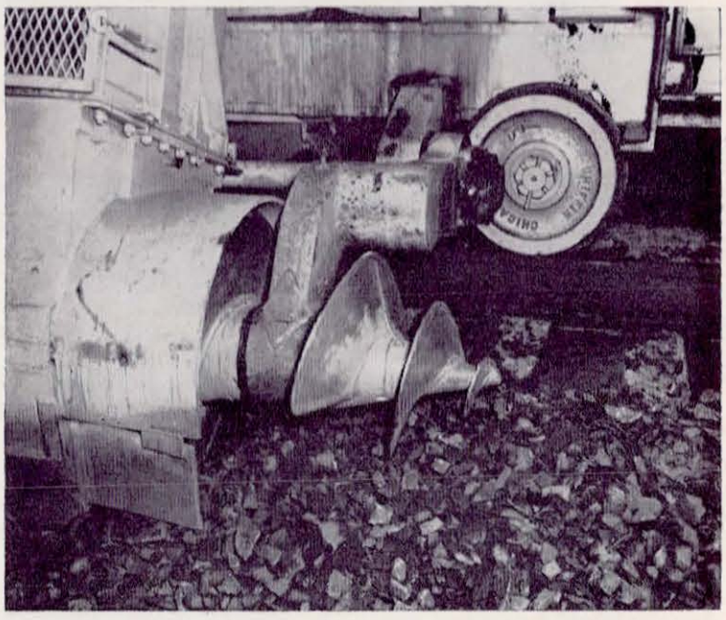


The combination winch car-cleaner unit cleaning ballast and wasting the dirt along the right of way.

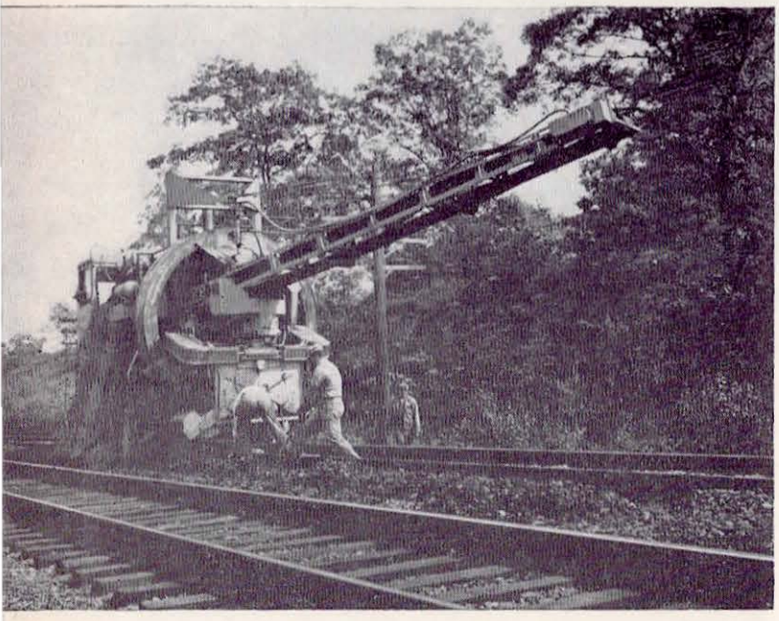


The winch car is secured to the track by dual hydraulic rail clamps. Set-off wheels are visible beneath the car.

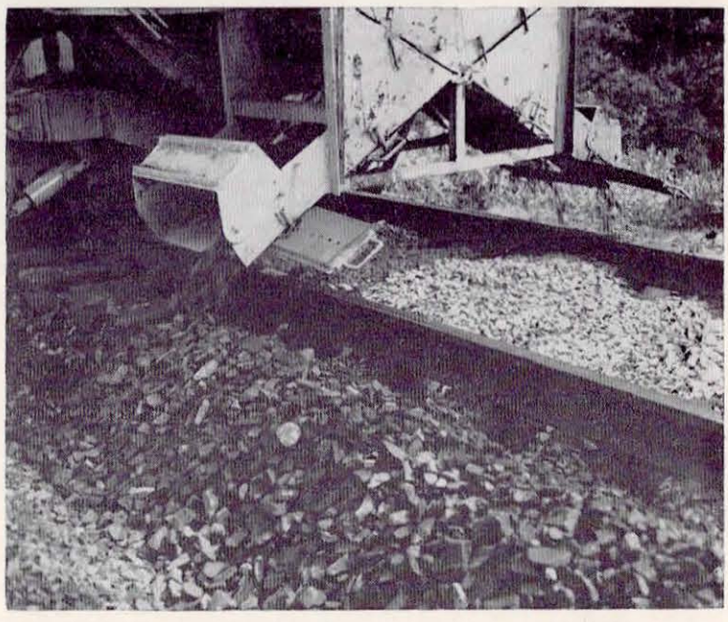
The ballast cleaning unit from the "business end." At far right can be seen cable connection leading to winch car.



Close-up of the auger-type ballast collector. Ballast is carried upward to the screens by a bucket conveyor.



Rear-end view of the cleaner unit. Dirt conveyor can swing in a 140-deg. arc to waste dirt wherever desired.



After having been cleaned, the ballast is redeposited on the track in position for tamping.

On the New Haven . . .

Improved Machine for Cleaning Ballast

Separate winch car tows latest version of Pullman-Standard Power Ballast Cleaner—Other innovations include an auger type ballast collector and a new revolving dirt-lift wheel

The inherent advantages of having clean, well-draining ballast are clearly recognized by the New York, New Haven & Hartford. In a program designed to gain these advantages, the latest Pullman-Standard Power Ballast Cleaner is now being used to clean stone ballast on main-line track between New York and Boston, over which the principal New Haven trains operate. This improved machine incorporates several major design and operating features not found in previous models.

The cleaner unit is designed to pick up dirty ballast simultaneously from both shoulders of a single track or the shoulder and part of the "six-foot" of a multiple track. According to the manufacturer, the Pullman-Standard Car Manufacturing Company, Chicago, the unit is capable of cleaning the dirty ballast and redepositing it on the track at a rate of 1,000 to 1,250 track-feet per hour. Where the track has been previously cribbed the machine is said to have the capacity to clean both the shoulder and the cribbed ballast at a rate of 600 to 800 track-feet per hour. The cleaner digs out shoulder ballast to a depth of 8 to 10 in., depending upon whether the ties are 8 ft. 6 in. or 9 ft. in length.

Winch Car Added

One of the more important features of the improved ballast cleaner is the addition of a winch car which is said to provide positive, variable speed propulsion of the ballast-cleaner unit. The winch car, which weighs 29,800 lb., is operated by one man. Propelled by a 40-hp. diesel engine, it runs ahead of the cleaner, unwinding cable for a distance of 500 ft. The car is then anchored in place with hydraulic rail clamps and proceeds to pull the cleaner toward it. The rail clamps have been designed so as not to slip on greased rail even when the full load of 30,000 lb. is applied to the car through the cable.

Electric Clutch Controls Excessive Tension

In case the cleaner unit should strike a submerged obstacle in the ballast, an electric slip clutch safety device on the winch car automatically prevents the tension in the cable from exceeding 30,000 lb., even though the breaking point of the cable is 60,000 lb. As an additional safety feature, the winch car is equipped with a hydraulically actuated over-center mechanical track lock or safety hook, which is designed to hold the car in place in the event the rail clamp should fail.

Cleaning Unit Features

A new design feature of the cleaner unit is the auger which breaks up cemented ballast and carries it back to the elevators just as a wood auger carries chips out of a hole. Another noticeable change in the cleaner design is the use of a revolving lift wheel which carries the dirt ejected from the shaker screen to a top-mounted belt conveyor which disposes of it. The top position of this conveyor system is reported to permit complete flexibility of adjustment of the distributing mechanism for the cleaned ballast—allowing it to be placed on the track at any desired location.

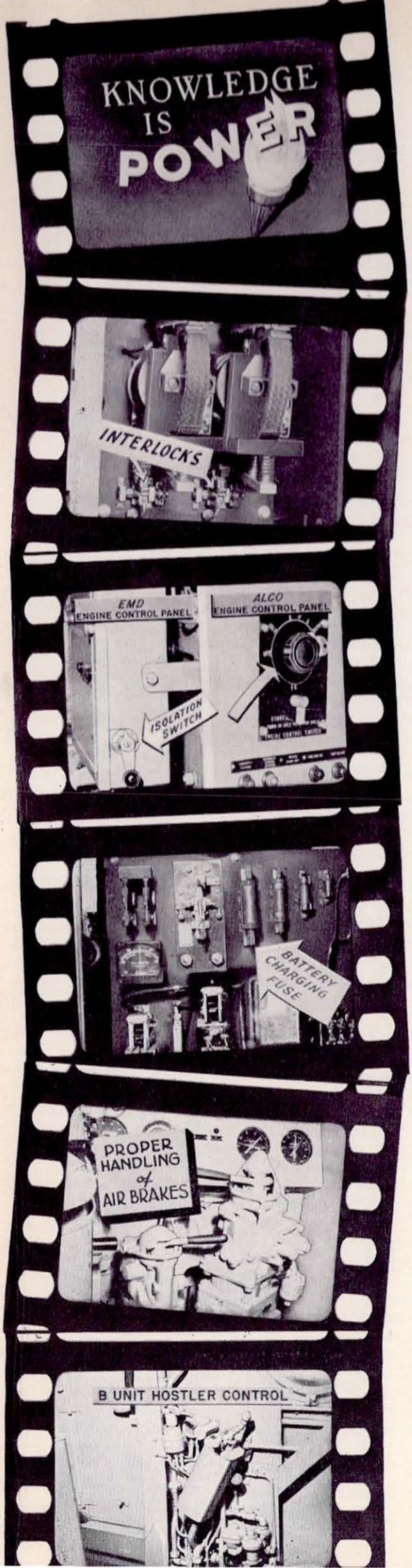
Operates Over 140-deg. Arc

The dirt conveyor is hydraulically operated from the cab by the operator who can swing the conveyor to any position in a 140-deg. arc. In this manner, dirt can be wasted over the bank, over the second track to the opposite shoulder, or into a car behind the cleaner unit.

The new cleaner weighs 80,800 lb., and is powered by a 150-hp. diesel engine which drives the elevators, digger section, dirt belt conveyor boom and the hydraulic system.

An additional 40-hp. diesel engine drives the vibratory screen and the dirt lift wheel. One or both elevators can be lifted by either engine for clearance whenever necessary.

Both the winch car and the cleaner are self-propelled, having a running speed of 25 m.p.h., and either unit can tow the other when traveling. In addition, each is equipped with a powered lateral set-off mechanism. It is suggested that railroads will find various uses for the winch car as a separate unit when it is not employed with the cleaner during the ballast-cleaning operation.



"Refresher Course" In Diesel Trouble-Shooting

Missouri Pacific sound-slide film will bring practical tips to all operating and maintenance men

What is believed to be the first sound-slide film to cover thoroughly the subject of diesel-electric locomotive "trouble-shooting"—when power failure occurs on the line of road—has just been completed by the Missouri Pacific. Consisting of 191 "frames," or still pictures, on a strip of 35-mm. film and with explanatory narration on three sides of 16 in. electrical transcriptions, the new visual aid film, entitled "Knowledge Is Power," is now being shown to enginemen and firemen, diesel maintenance forces and supervisors all over the system lines.

The new sound-slide film is intended primarily as a "refresher course" for enginemen who have had previous training and instruction in diesel locomotive operation, but who, fortunately, do not have frequent occasions to experience trouble during a scheduled run of their trains. The diesel locomotive is nevertheless subject to occasional malfunctioning, and it is the purpose of the new visual aid to help engine crews to diagnose the cause of the power failure and show them what to do and how to remedy the trouble without the use of tools or special testing equipment.

Color Helps the Story

The film is in color, thus showing to better advantage, and for easier understanding, the variety of color in the faces of the meters and the pointers on the gages, and the display of colored warning lights on electric panels. Actual sound effects, especially recorded from life, are introduced here and there throughout the film to lend emphasis and reality to the picture at those particular points.

Early "frames" in the film point out how simple little controls, overlooked or ignored, may be reasons why the engine won't start. Routine inspections by locomotive enginemen before they leave on a run are outlined in the film and procedures for normal operation to get under way precede the more detailed explanations of what to do if and when trouble develops after the train is on its way.

"Knowledge Is Power" confines itself to two makes of locomotives—the American Locomotive-General Electric units and General Motors Electro-Motive Division units, identified in the film, as in ordinary railroad

Illustration reproduced from MP slide film. Use of split-frame is shown in the view of engine controls. Below that are shots of the battery-charging fuse, air brake control valves and B-unit hostler control station.

parlance, as Alcos and EMDs. The same general type of throttle and air-brake equipment is found on both types of locomotives although since other specific apparatus may not be identical, the pictures show both kinds and where it is located in both makes of locomotives. In this connection the film makes considerable use of a familiar device in filmstrips—the "split-frame"—wherein the one screen image shows both items in the single picture while the narrative discusses the use, operation, adjustment or repair of these parts.

Pneumatic Control Switches

Pneumatic control, or P.C., switches are covered in some 20 frames. Why they "kick out," and the procedure for resetting them, is followed by a few pointers on overspeed trips and ground relay failure and why governor controls go out. More electrical troubles are treated in a discussion of starting contactors and interlocks, what causes their malfunctioning, and suggestions for remedying the trouble.

After showing the location of the electric distribution panel in each type of locomotive covered in this film presentation, the study is confined to those fuses or breakers which directly affect the operation of the locomotive. Specifically commenting on the speed control fuse, the narrative warns that "many delays have resulted from pulling the speed control fuse to test it, when the fuse is not blown. Remember this; never pull this fuse when brake pipe pressure is normal, for normal pressure tells you this fuse is okay." In all, 36 frames are devoted to fuses and circuit breakers.

Following sequences consider other engine failures or symptoms which, if mishandled or ignored, may lead to locomotive stoppages. Each type of locomotive is equipped with a buzzer or warning bell and a corresponding display of colored lights on the instrument panels in front of the engineer or fireman, audibly and visually to direct their attention to impending malfunctions. The sound-slide film reproduces both the bell sound and the color of the light just as they are heard and seen in the locomotive cab, signifying a hot engine, low oil pressure, steam generator failure or alternator failure.

B-Unit Controls

Locomotive B-units are mentioned in the film. While such equipment is normally controlled by the engineman in the A-unit, it is possible to operate B-units by themselves, or in emergencies, from so-called "hostler's controls." However, since this is unusual in regular road service, the actual operating procedure is carefully detailed and the film points a moral in lack of knowledge in this situation by telling of an accident caused by inexperience with B-unit controls.

Fire protection equipment is installed in every diesel locomotive. Fortunately, instances are rare when enginemen are called upon to use it. Nevertheless, the film presentation stresses the importance of engineers and firemen knowing what equipment they have, where it is located and what type to use in emergencies.

Concluding the film in a somewhat lighter vein is a short sequence done in cartoon style which effectively sets forth that knowledge, whether gained through book learning or experience, is power, when used and guided by human intellect.

"Knowledge Is Power" is one of a series of sound-slide films that have been produced by the MP. Others were on aspects of operating rules, including rules on block signals, operation of switches, and meeting point rules. A film strip on train radio rules is about to be released and one on courtesy is nearing completion. Scripts for these film presentations are prepared by F. O. Garrett, rules instructor of the road, who also supervises their production. Technical details of original photography and art work are supervised by Irvin A. Eckman of the public relations department, while the sound recording and film-strip color photography are completed by commercial film studios in St. Louis and New York.

The railroad has 24 sound-slide film projectors in division offices, district offices and instruction cars. Superintendents, their assistants or trainmasters schedule and direct the screening programs in their territories.

Letter from a Reader . . .

More About Use of Diesels on Light Rail

St. Louis, Mo.

To the Editor:

A number of requests for additional information have been received following publication in the October 6 *Railway Age* of the article describing the Katy's experience with the use of diesel power on its Northwestern division, a line laid with very light rail. As a result of these requests the following additional data have been compiled, which I thought might be of interest to other readers.

The Northwestern division has some 10 miles of gravel and screenings ballast on it and several stretches, aggregating some 30 miles, of caliche used as ballast; otherwise there is no ballast on the division. The soil is generally sandy and ranges from red sandy clay to almost pure sand in places. The line is maintained with fair branch-line success on the earth material from which it was graded. It is essential that all ties be sound and rail joints in good condition. The trestles have three-ply chords and are designed for E-45 loading. Maximum gradient is 0.75 per cent. Maximum freight-train speed is 25 m.p.h. except between Miles 14 and 76 where it is 20 m.p.h. (This territory has the worst soil and 60-lb. rail.)

In addition to the Mogul type engines with 49,000-lb. axle loads, we used some light Consolidations (40,000-lb. tractive force) with 46,000-48,000-lb. axle loads. Speed restrictions for the diesel engines are the same as those shown for steam engines.

About 50 to 60 per cent of the ties are hardwood (red oak or gum) and the remainder pine, all creosote treated. Rail anchors average about 620 per mile. The anchors have been applied in only those places which have manifested a need for them. In the areas used they are, of course, greater in number per mile than the average.

With the Mogul type engines operating at 15 m.p.h., we estimated the stress in the 60-lb. ASCE rail at 29,290 psi.; at 25 m.p.h. it was 31,100 psi., taking into consideration the dynamic augment. With the 1,500-hp. switchers operating at 25 m.p.h. we estimate the stress at 37,900 psi.

As indicated in the original article there was a considerable wheat tonnage moved from this territory during the past season and so far we have experienced no trouble with this program to use the diesel engines outlined.

K. H. Hanger
Chief Engineer
Missouri-Kansas-Texas Lines

Southern Pacific President D. J. Russell ordered his set of monogrammed cork coasters from Emily Omar, sales manager of "Novelty Products," a JA "company" sponsored by the railroad.

Great Northern President John M. Budd finds out about "toy duck with mechanical flippers," product of the "GN Novelty Company," as V. C. Peterson, chief advisor to the "company," watches.

How Juniors Are Learning About Business, U. S. A. Style

Many railroads join with other businesses to promote youthful understanding of private enterprise

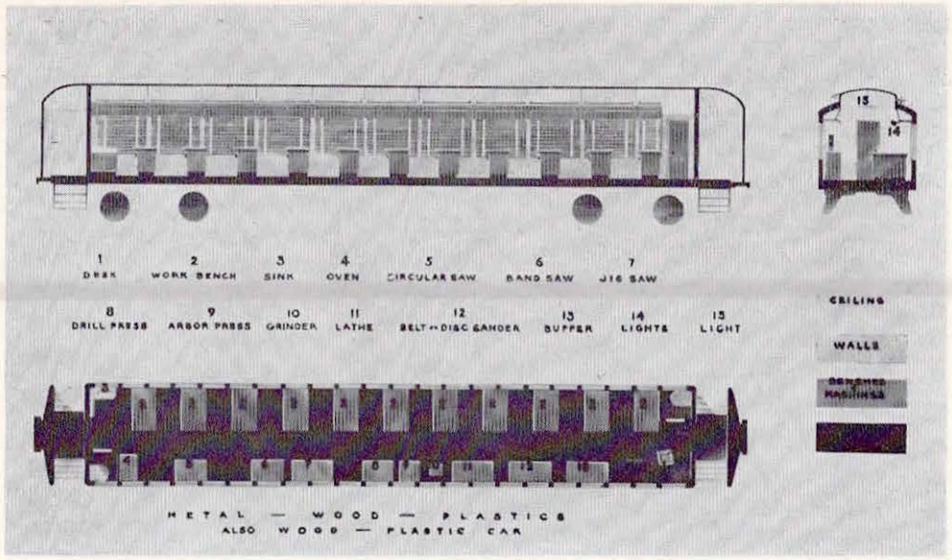
A number of railroads and railroad equipment manufacturers have given their support to "Junior Achievement"—an unusual "community relations" project which could, in the long run, result in a greatly improved public understanding of the function and value of private enterprise. Junior Achievement—or JA—is rather like a city counterpart of the widely and favorably known "4-H Clubs," which teach young people in rural areas high principles and practices in farm and rural occupations. JA, in a parallel program, instead of encouraging youngsters to learn how to excel in raising cattle or in making preserves, teaches them the ideals and methods of free enterprise, U.S.A. style, by actual practical experience in producing and marketing useful goods and services.

Conceived in 1919 by Horace A. Moses, late president of Strathmore Paper Company, as a handicraft club in the New England area, Junior Achievement gained impetus in 1926 when the late Theodore N. Vail, then head of American Telephone & Telegraph, became interested in Mr. Moses' project. Junior Achievement, Inc., was organized along present lines in 1942.

Some 5000 business firms are now participating in JA, among them being the following railroads and railway equipment companies: Denver & Rio Grande Western; Great Northern; Minneapolis & St. Louis; Missouri-Kansas-Texas; Missouri Pacific; Northern Pacific; Soo Line; Southern Pacific; Spokane, Portland & Seattle; Wabash; Western Pacific; Pullman-Standard Car Manufacturing Company; Electro-Motive Division of General Motors; and Chicago Railway Equipment Company.

JA has also attracted the individual participation of a wide representation of people actively and prominently engaged in railroading. Donald V. Fraser, MKT president, is a member of the board of directors of Junior Achievement of Misisssippi Valley, Inc., with headquarters in St. Louis; F. E. Bates, executive assistant, Missouri Pacific, is vice-chairman of the board of Junior Achievement of Houston (Tex.), Inc.; and F. G. Gurley, president of the Santa Fe, served as general chairman of the 1952 "Future Unlimited" banquet of Junior Achievement of Chicago, Inc. Held in the grand ballroom of the Conrad Hilton Hotel, the banquet was attended by more than 1,800 people.

Mr. Gurley is also a member of the Advisory Council of JA of Chicago. Serving with him on the council are Champ Carry, chairman of Pullman-Standard Car Manufacturing Company; Fred A. Poor, chairman of Poor & Co.; H. C. Murphy, president of the Chicago, Burlington & Quincy; and Wayne A. Johnston, president of the Illinois Central. R. A. Williams, president of Standard Railway Equipment Manufacturing Company, is a mem-



This model of a JA railway shop which might be converted from an old railroad car and used as a mobile JA "business center," to move from one community to another, is proposed to railroads by Junior Achievement, Inc., as a possible means of bringing the opportunities of JA participation to youngsters throughout the country—especially in towns which are too small to support a permanent Junior Achievement installation.

ber of the board of directors and of the finance committee of JA of Chicago; R. E. Woodruff, chairman of the Erie, is serving on the Cleveland JA Advisory council; B. Howarth, assistant to president of the Reading, is a member of the Philadelphia JA board of directors; and William J. Powell, assistant general counsel of the Minneapolis & St. Louis, is president of the Minneapolis JA board.

The purpose of Junior Achievement is to give young people a clear, sympathetic understanding of American business and a conviction based upon experience that the system of capitalism and free enterprise, under which this country has steadily progressed, operates in the balanced interest of everyone—the consumer, the employee, management, and the investor. JA has no ties with any other group, economic, political or religious. It is strictly a public relations program designed to help preserve freedom of opportunities in the United States. It also provides an outlet for the social instincts of a lot of people in business and industry who enjoy doing constructive work with young people.

The vehicle through which JA educates American youth to an appreciation of the workings and opportunities inherent in our system of free enterprise is the miniature business, or junior company. Each junior company has a sponsoring business firm and under the guidance of trained, adult advisors—employees of the sponsoring companies who volunteer to take on this extracurricular responsibility—a group of 10 to 15 high school juniors and seniors form a "company" to produce and sell a product, or to develop and sell a service.

JA is a leisure time program which does not interfere with the students' school or recreational activities. The operations of the "company" are conducted in a local "Business Center," which is generally shared by anywhere from 5 to 10 or more different companies, each of which meet, together with their advisors, one evening each week, Monday through Friday, throughout the school year. Each functioning group must pay a nominal rental for use of the Business Center's facilities. The companies generally finance themselves through the sale of "stock" at 50 cents or so a share, and each company has a complete contingent of officers and directors, elected from among themselves by the participating youngsters.

The students are serious in their efforts to "make a success" of their enterprises. They are intent on making a profit, paying salaries and wages and earning dividends for investors, and in the process they learn to keep business records, set up efficient production and assembly lines, conduct advertising campaigns, develop public relations programs and prepare reliable financial statements.

Special Incentives Offered

Special incentives, in addition to the wages or salaries paid them by their miniature companies, are offered the youngsters by the sponsoring companies. College scholarships have been established; trips to the national conventions of their own junior trade associations or to the conventions of regular industry trade associations are awarded and paid for by the industries concerned, and certificates of recognition of individual achievement and progress in the movement can be earned by the youngsters.

Typical of the railroads actively participating in JA are the Southern Pacific and the Great Northern. The SP has been active in this program since 1950, when twelve members of the road's accounting department served as advisors for three companies. During the 1951-52 school year three JA enterprises were again sponsored by the SP in the San Francisco program. The "companies" sponsored were "J. A. Novelty Company," which produced wooden dolls dressed as clowns; "Novelty Products," manufacturer of monogrammed and ornamental cork coasters; and "Universal Enterprises," which made redwood flower boxes. Volunteer advisors in the 1951-52 program included eight employees from the accounting department and one each from the treasury and engineering departments as follows: H. J. Buswell, statistician; E. J. Collins, paymaster; C. G. Cross, chief clerk; J. F. Hoffman, interline accounts clerk; J. W. Murray, tax clerk; J. E. Rice, assistant chief clerk; J. J. Smith, special accountant; R. P. Sweeney, assistant engineer; E. E. Wahline, special division clerk; and T. C. Williams, withholding tax clerk. The road is continuing its sponsorship again in the 1952-53 school year.

The Great Northern has sponsored two JA companies since the program was established in St. Paul, Minn. One unit—the "GN Novelty Company"—produced a toy duck with mechanical flippers; and the other—

A Pullman-Standard sponsored "company" in operation at the Pullman-Roseland Business Center.

"Dood-It Company"—manufactured a pin-up bulletin board. Great Northern personnel who served as advisors to the two companies are: R. A. Smith, assistant to the general superintendent of motive power; E. W. Bergstrom, general freight agent; V. C. Peterson, chief tax accountant; Henry Whyte, superintendent of shops; Leonard Van Zinderen; and Conrad Stralka.

Among the railway equipment companies active in the movement, the Pullman-Standard Car Manufacturing Company has been sponsoring JA companies in the Chicago program for the past six years. The company's interest in the project was evidenced in establishing the Pullman-Roseland Business Center in Building 19 on the grounds of the Pullman Car Works in Chicago. The Pullman center is equipped with drill presses, band saws, circular saws, printing and embossing equipment, buffing wheels and sewing machines. The Electro-Motive Division of General Motors and the Chicago Railway Equipment Company also sponsor JA units which function at the Pullman-Roseland Center.

Employees who have recently served as advisors to a Pullman-Standard sponsored group, known as the "Nu-Wood Company"—which "specialized" in "nagging boards" (better known as bulletin boards), and made stands for ladies hats, as a side-line—are Robert G. Belden, Mrs. Margaret Belden, F. S. McIlrath and W. D. Caughran.

JA Mostly in Urban Areas

The nature of the Junior Achievement program has pretty much restricted its operations to industrialized areas where sponsorship of the junior companies is readily obtainable; but JA has a blue-printed plan to bring the program to every community in the nation. Under the plan, as outlined by Rome E. Collins, national executive director of Junior Achievement, Inc., the railroads might use old cars as mobile JA business centers (see illustration). These centers could move from town to town to accommodate JA companies sponsored by the railroads or local groups in communities which are too small to support a permanent Junior Achievement installation. Further information about any or all phases of the project are available by writing to Junior Achievement, Inc., 345 Madison avenue, New York 17.

Letter from a Reader . . .

Are Low Car Floors a Safety Hazard?

YOUNGSTOWN, OHIO

TO THE EDITOR:

Your editorial "Is Archaic Car Design a Factor in Passenger Deficits?" in the June 16 *Railway Age* leads me, as a licensed, professional engineer, with experience in the railway passenger field, to offer further comment.

One Class I railroad has bettered the 1½ tons per passenger figure considerably. It uses plain P.C.C. cars [city street car specifications] for commuter service. As for the safety of passengers in such light cars, a railway engineer (mechanical) told me that, through negligence, a P.C.C. car once ran into a car of about 60 tons with standard couplers and floor height. There was about $4,000 damage to the $40,000 P.C.C. car ($750 per passenger seat), but the big car had its end stove in completely. For railroad use, standard multiple-unit P.C.C. cars could have a buffer plate built into their ends at standard coupler height.

The Bamberger railroad formerly mixed high-floor, heavy weight and low-floor, lightweight cars in its high speed operation. Mixed-height equipment is in use today on passenger trains on such roads as the Cedar Rapids & Iowa City, the Sand Springs, and the Montreal & Southern Counties.

Of course, federal, state and local aid to highway carriers and air lines hasn't made things very easy. But to me, the first and foremost cause of passenger deficits is the utter failure of railroads to have a practical overall passenger policy. To sell passenger travel, you must integrate exacting schedules—determined by the time people want to go—the frequency of competitor's service, good equipment, competitive fares, and then *sell* like a life insurance man sells. It is absurd to charge the same rate per mile New York to Washington with heavy loads and stiff competition as is charged on long feeder runs with low efficiency and a dropping load factor. It is necessary to blend fares, schedules, and equipment all at once. Any plan that today results in out of pocket and depreciation costs of over one cent per seat-mile should be scrapped and restudied for different equipment.

E. L. TENNYSON

Walter R. McDonald, member of the Georgia Public Service Commission, and chairman of the N.A.R.-U.C.'s Special Committee on Cooperation with the I.C.C. in the Study of the Railroad Passenger Deficit Problem.

Is This the Answer to the Passenger-Service Deficit?

Three-year study by committee of state commissioners results in comprehensive report, embodying eight specific recommendatons, designed to put railroad passenger service on paying basis

Eight specific recommendations, designed to eliminate or substantially reduce the railroads' chronic postwar passenger-service deficit, were adopted by the National Association of Railroad and Utilities Commissioners in the course of its November 10-13 annual meeting at Little Rock, Ark., with 42 states represented.

The recommendations themselves, as set forth in full elsewhere in this article, were the result of a three-year study by a special committee created by the N.A.R.U.C. at its 61st annual convention in Cleveland in 1949. This committee's work, which included "perhaps the most comprehensive study ever undertaken" of individual deficit passenger trains, led the group to the following conclusions, which represent its "collective attitude," and formed the basis for the specific recommendations which were approved by the Little Rock convention:

General Conclusions

"1. The large and continuing deficits incurred by the railroads from the operation of passenger-train service constitute the railroad industry's most serious problem today—a problem which is of paramount importance to the members of this association and to the general public. Railroad earnings are being adversely affected, the users of freight service are already being forced to bear some of the burden of passenger losses, and if the trend toward increasing passenger deficits is continued unabated, the ability of the railroads as a privately owned industry to

THE N.A.R.U.C. RECOMMENDS . . .

1. That the railroads re-evaluate the results of the May 1951 study of individual deficit passenger trains in the light of changes in mail pay rates and in operating expenses, and that each railroad seek authority from the appropriate commission, or commissions, to discontinue operation of each passenger train which is producing (at current levels of rates, fares and charges) revenues substantially less than the operating expenses (at current levels of wages and prices) reflected in the accounts shown on the summary of the May 1951 study [attached to the report as Appendix XIX thereof]; and that, with due regard to public convenience and necessity, the regulatory bodies in acting upon such applications should adhere vigorously to the principle that where the service cannot be made compensatory its abandonment should be permitted.

2. That as losses are reduced by discontinuance of the aforementioned direct-deficit trains the railroads adopt an aggressive policy of improving their remaining passenger-train service by installation of more economical motive power and replacement or improvement of other equipment, all to the end that such remaining passenger service may be made so attractive and economical as to assure its continued operation.

3. That railway labor and management confer regarding the substitution of more economical equipment and reductions in the size of train crews, consistent with safe and efficient operation, pertaining to those deficit trains the earnings of which might be improved sufficiently to assure their continued operation.

4. That the general solicitor [of the N.A.R.U.C.] be authorized and directed to appear before appropriate congressional committees for the purpose of informing the Congress of the adverse effect which subsidies to competing forms of transportation have upon railroad passenger operations and therefore upon the public, and further for the purpose of urging that the federal excise tax on the transportation of persons be eliminated and that parcel post competition with rail express service should be conducted only under fair and compensatory rates.

5. That the association record itself as favoring the imposition of compensatory user charges on all forms of commercial passenger transportation making use of roadways, airways or other facilities constructed or maintained at public expense.

6. That the association record itself as favoring the amendment of existing state laws (1) preventing the employment of minimum train crews consistent with safe operation, and (2) unqualifiedly prohibiting discontinuance of the last passenger train on a line of railroad.

7. That the association adopt a standardized form for filing applications for authority to abandon railroad passenger service and that the information shown on such application should, if verified, provide the basis for state commission action with the maximum expedition consistent with the laws of the jurisdiction.

8. That the special committee be continued in existence for an additional year in order that it may report the progress made in carrying out the foregoing recommendations and for the further purpose of participating to whatever extent may appear advisable in the proceedings which the Interstate Commerce Commission will undoubtedly initiate in connection with the expiration, renewal, extension, modification, revision or cancellation of the existing agreement under which the railroads handle express traffic.

Although, says the report, "there is much old railroad passenger equipment still in operation . . . the installations of new passenger equipment have been significant." Typical of such new equipment are the Budd-built all-stainless-steel sleeping cars, featuring roomettes, single and double bedrooms, and upper and lower berths, which the Burlington has recently added to its Chicago-Twin Cities "Blackhawk" service; to its Chicago-Omaha-Lincoln "Ak-Sar-Ben"; and, jointly with the Rio Grande and the WP, to the Chicago-San Francisco "California Zephyrs."

continue providing necessary freight and passenger service to the public, either under normal conditions or in times of emergency, will be seriously jeopardized.

"2. While the reported deficits from passenger service have averaged $565 million annually for the past five years, the extent to which passenger service has reduced the railroads' earnings and has constituted a burden upon freight service cannot be exactly determined. Under the accounting procedures prescribed by the Interstate Commerce Commission more than one-fourth of all passenger operating expenses, taxes and rentals consist of an apportionment of expenses common to both freight and passenger service. A substantial portion of these common expenses would continue if no passenger service were operated. In 1951, however, directly assigned passenger expenses exceeded revenues by $50 million.

"3. The term 'passenger service' includes in addition to the transportation of passengers and their personal baggage, the movement of substantial quantities of property on passenger trains consisting predominantly of United States mail, railway express, and shipments of milk and cream. Much of the passenger service deficit is attributable to the transportation of such property for compensation which fails to equal the expense of providing the service. This appears to be particularly true of express traffic.

"Elimination of this so-called head-end traffic, however, would not eliminate the deficit. On the contrary, the deficit incurred by numerous local passenger trains would be substantially higher if it were not for the revenues earned from head-end traffic. On many such trains the head-end revenues are quite substantial. Moreover, the reduction of car-miles which would be accomplished as a result of discontinuing head-end business alone would not necessarily be accompanied by a proportionate reduction in operating expenses.

Subsidies a Major Cause

"4. The passenger deficit problem is caused by competition (some of which is subsidized by federal, state and local governments); by the failure or inability of the railroads to take effective steps to meet such competition; and by substantially increased expenses which result partly from labor agreements and state labor laws which are not responsive to the requirements of passenger service as it is and can be operated today, and by the failure of regulatory bodies promptly to permit the abandonment of operations which cannot be made compensatory.

"5. Some passenger service is currently producing net income and much other service is operated near the break-even point. A major portion of the deficits are therefore incurred from the operation of certain trains at heavy losses. Many of these trains were the subject of the May 1951 study of individual deficit trains, a summary of which is attached as Appendix XIX [of the report] and a complete copy of which study has been furnished each commission. However, the study does not include all trains producing large deficits, and does, on the other hand, include some which are operating sufficiently near the break-even point that the deficits could be eliminated by moderate reductions in expense and increases in revenue.

"6. The railroads have made numerous and substantial increases in passenger fares and in the rates applicable to the transportation of head-end traffic. Although these increases have been far less relatively than the increases in the cost of living and in the cost of providing passenger-train service, under present competitive conditions further increases in rates, fares and charges cannot alone solve the passenger deficit problem.

"7. In their effort to eliminate or reduce the passenger deficit the railroads have abandoned many unprofitable passenger trains, have purchased new passenger-train equipment, have experimented with various other means of increasing traffic and have made technological improvements designed both to reduce expenses and to increase the attractivenes of their service. One of these experiments has been the increased use of self-propelled rail cars for operation in local and commutation service and on branch lines. While this experiment cannot be relied upon as a general solution for passenger deficits, it has proved valuable in many individual instances where conditions are favorable to the operation. Some of the railroads, however, have been handicapped in their efforts to improve equipment by a lack of capital funds.

"8. A possible source of funds for the purchase of new equipment is the savings which can be realized from discontinuing the grossly unprofitable passenger trains such as those shown in the reports of the May 1951 study of individual trains."

The foregoing conclusions and the accompanying recommendations were incorporated in an 84-page report, including 19 appendices. The bulk of the report is devoted to the committee's findings on four major questions: "What is the passenger deficit problem? What causes it? What have the carriers tried to do to solve it? What should be done?"

What Is the Problem?

The report points out that, except for the four war years, 1942-1945, deficits from passenger-train operation, including head-end services, have been not only chronic, but have grown steadily larger, year by year, from 1930 through 1951. It describes the present deficit as "the most challenging problem in the regulatory field"; quotes "a member of the I.C.C." as calling it "the most serious problem today confronting the railroads"; and says "one bewildered student" [has classified it] as "one large dilemma composed of several small paradoxes."

The report defines "passenger service" to include not only transportation of passengers and their baggage, but of mail, express, newspapers, milk and cream, and other articles in passenger trains, plus operation of dining cars, restaurants and hotels. "In most years," it says, "more than half the recorded passenger deficit was attributable not to transportation of passengers, but to services allied therewith." In 1951, that deficit reached an all-time high of $681,332,000, equivalent to 42 per cent of the $1,624 million which the railroads earned from freight service in the same year. On seven major railroads, according to one of the appendices, the passenger-service deficit exceeded 50 per cent of earnings from freight service, and on two it was over 75 per cent.

"No section of the United States," the report continues, "has a monopoly on the passenger deficit problem"; the problem "has attacked virtually every individual carrier." This situation is emphasized by the accompanying table, reproduced from the report, which summarizes a May 1951 study of 1,191 individual deficit trains operating on both main and branch lines of 61 railroads, and in every one of the 48 states.

Effect on Freight Rates

"It is almost certain," says the report, "that had there been no passenger deficit, freight rates would be lower than they are today. . . . The imposition upon freight service of such direct and joint costs as may fairly be allocated to passenger service has important consequences upon the national economy. First, it adds to the difficulties of the railroads in meeting truck competition for carload freight. . . . Secondly, it makes clear the fact that the passenger deficit—or at least a portion of it—is eventually borne by the general public in the form of higher prices for all commodities the prices of which are affected by freight rates. . . . A less tangible but equally certain consequence of continued large passenger deficits is the impetus they give to the regrettable trend toward greater federal power and eventually toward government subsidy or operation of the railroads."

But "it is not altogether accurate," the report declares, "to say that passenger service has been a burden upon freight service to the full extent of the passenger deficit recorded in any year." It points out that in 1951 "directly assigned expenses exceeded passenger-service revenues by only $50 million" and that "in several of the postwar years there was no direct deficit."

DEFICIT TRAINS—KEY TO PROBLEM

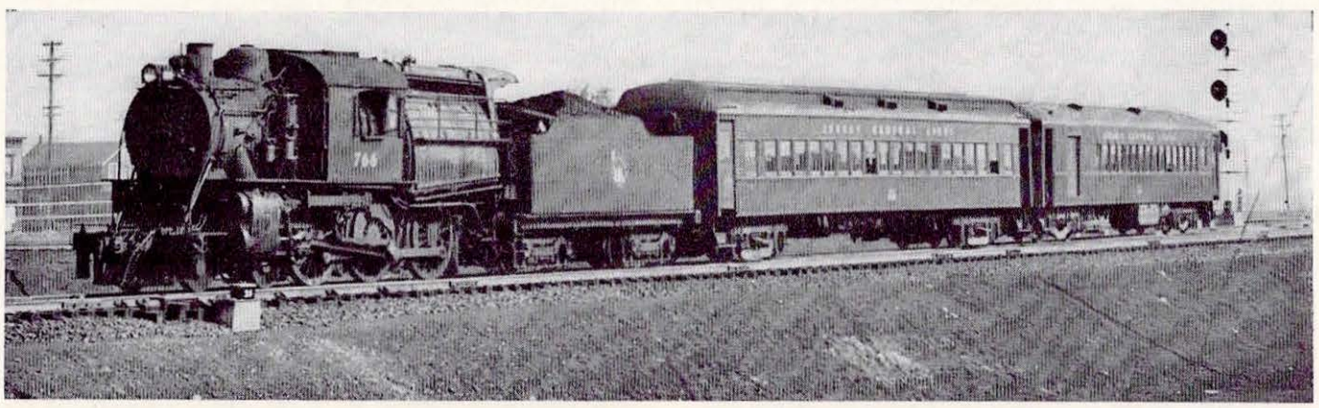
One-way mileage	No. of trains	Aggregate net loss for May 1951
Less than 50	121	$108,609
50 to 100	306	746,751
100 to 150	291	972,445
150 to 200	147	767,953
200 to 250	77	462,145
250 to 300	89	955,963
300 to 350	45	567,990
350 to 400	15	253,821
400 to 450	16	175,454
450 to 500	22	285,576
500 and over	62	1,738,648
Total	1,191	$7,035,355

The foregoing tabulation covers only 61 railroads, some of which excluded from the study all trains operating less than 50 miles. Commutation trains were not included. Even on that restricted basis, the study does not reflect all deficit trains, in that it includes only those trains which did not earn sufficient revenues to offset certain selected (so-called out-of-pocket) operating expenses. Excluded from consideration were all of the apportioned operating expenses, and in most cases, no depreciation, traffic, accounting or general expenses were shown, even when directly assigned to passenger service. Additionally, certain trains which incurred a deficit even on the basis outlined above were excluded from the study because in the managerial judgment of the concerned carriers, it was not feasible to discontinue the service.

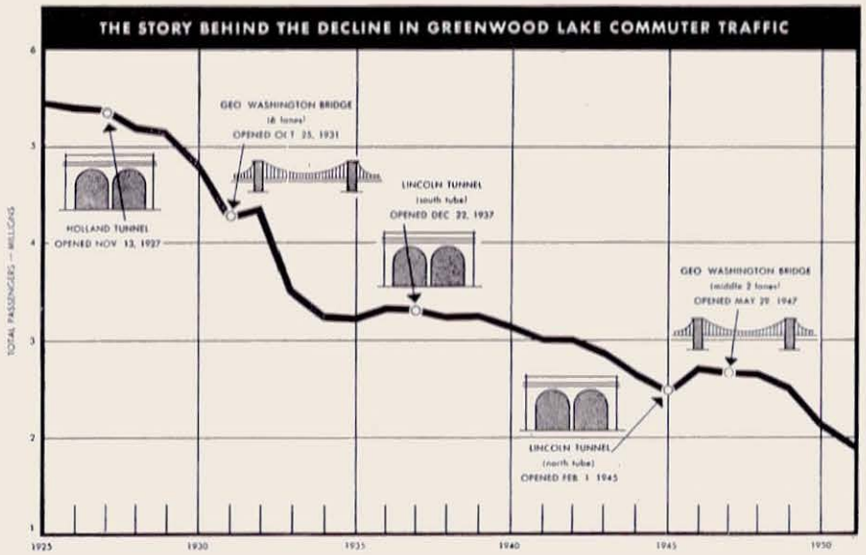
The report lists and comments on the following factors as causes of the deficit:

Passenger Traffic Trends—"Volume of traffic has exercised a far greater influence on rail passenger earnings than has the level of passenger fares. . . . It is painfully obvious that, relatively, the railroads have incurred a shocking loss of passenger traffic."

Competition—"The most disturbing feature of the railroads' competition has been the fact that the loss of short-haul traffic to the automobile and bus has been accompanied by the inroads of commercial air lines into long-haul traffic. . . . The air lines have been aided and abetted in numerous ways by governmental subsidies and regulatory policies in developing into such an important competitive force. It is difficult to reconcile the fact that the air lines are today receiving even greater subsidies and other encouragements from federal, state and local governments than they have in the past when they were perhaps entitled to assistance as an 'infant transportation industry.' . . . This 15 per cent



"The key to the entire passenger deficit problem," says the committee's report, is the individual deficit-producing operation—like this "lonesome train" on the Jersey Central. Operating between Newark, N. J., and Elizabethport, 7 miles, it brings in annual revenue of only about $75. When this picture was taken last September 12, the train was carrying two revenue passengers—exactly double its normal load. In its effort to remove this train from service, the CNJ has done just what the committee recommends—"gone beyond a mere statistical presentation of its case"—by making this train the subject of an illustrated four-page folder distributed to the press and patrons.



Two facets of the passenger deficit problem—losses from commutation service and the impact of bus and automobile competition on short-distance travel—are highlighted by this chart, which shows how traffic on the Erie's Greenwood Lake suburban division has fallen off with the opening of each new publicly financed facility providing easier highway access to New York City. The original of the chart was reproduced in a folder which the Erie recently distributed to its Greenwood Lake patrons, coincident with a petition to the New Jersey Board of Public Utility Commissioners for authority to rearrange train services on the line in question. The rearrangement, principally affecting off-hour, Saturday and Sunday trains, is designed to reduce out-of-pocket losses presently running over $500,000 per year.

[federal transportation] tax in many cases is the deciding factor between the use of a private automobile or a commercial transportation facility."

Failure to Meet Changing Conditions—Under this heading the report calls critical attention to the 28-year average age of passenger coaches; to public complaints as to "inadequacy of platforms, sheds and terminals" for trains of present length; to frequent failure of passenger trains to maintain schedules; and to passenger irritation concerning handling of reservations, attitude of employees, fees for red cap service, etc. "It is questionable," it adds, whether railroads have done all they can to reduce costs of dining service.

Losses from Commutation Traffic.

Head-End Losses.

Increased Expenses — While taking cognizance of higher material prices and increased capital charges on expensive postwar equipment, this section deals largely —and critically—with labor costs. "No basic changes have been made in many years in the dual system of compensating railway operating employees. . . . It is not uncommon for a road operating employee to receive several days compensation within one tour of duty over a span of eight hours or less. . . . A portion of the passenger deficit is attributable to operation of trains with a larger crew than the carriers feel is necessary for safe and efficient transportation" because of state "full-crew" laws or labor agreements.

What Have the Railroads Done?

Under this heading the report reviews at length postwar technological improvements in railroad passenger service; increasing use of self-propelled cars; increases, and experimental reductions, in fares; higher rates on express, mail, and milk and cream, and increased advertising.

From the standpoint of immediate results, however, the report concludes that "the most effective steps the carriers have taken to reduce the passenger deficit has been the elimination of some of the trains which produce the largest deficits"—a program which is conceded to have "met with increasing resistance from the public and state commissions."

Between 1939 and 1951, the committee found, total train-miles in passenger service were reduced by 9.06 per cent; average miles of road operated in passenger service by 18.87 per cent. Both figures, the report implies, might have been larger but for "legal difficulties" arising from charters or state statutes which leave a state regulatory commission "powerless to authorize complete abandonment" of the last passenger service on some lines.

The committee then refers again to the study of individual deficit trains made for it by the railroads (see table), and concludes that these trains, "and others producing similar results, hold the key to the entire passenger deficit problem."

Outline of Committee's Work

The committee which submitted the report was headed by Walter R. McDonald, of Georgia, chairman, as successor to the original chairman, Lawrence W. Cannon, of Indiana. Members of the committee were Eugene S. Loughlin, Connecticut; Ray O. Martin, Ohio; Sam H. Flint, Georgia; Hammond Fowler, Tennessee; Elmer Cart, North Dakota; H. McKay Cary, Missouri (successor to Kyle D. Williams, Missouri); Wade O. Martin, Louisiana; Ray O. Weems, Oklahoma; Kenneth Potter, California; and John H. Carkin, Oregon.

The committee was assisted by the following specially designated representatives of cooperating organizations:

Interstate Commerce Commission—Commissioners J. Haden Alldredge, Walter M. W. Splawn, Martin K. Elliott (successor to Clyde B. Aitchison), and Anthony F. Arpaia (successor to John L. Rogers).

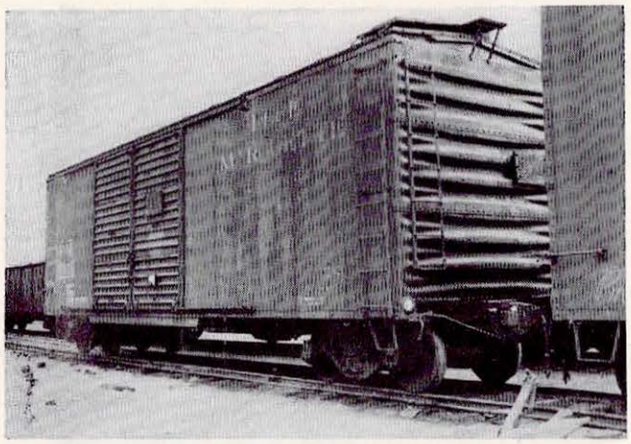
Railroads—William White (successor to Gustav Metzman), Eastern Railroad Presidents Conference; D. P. Loomis, Association of Western Railways; and Harry A. DeButts (successor to Ernest E. Norris), Southeastern Presidents Conference.

Railroad Labor Organizations—H. F. Hempley, Brotherhood of Locomotive Engineers; Roy Hughes, Order of Railway Conductors; W. P. Kennedy, Brotherhood of Railway Trainmen; D. B. Robertson, Brotherhood of Locomotive Firemen & Enginemen; A. J. Glover, Switchmen's Union of North America; George M. Harrison, Brotherhood of Railway Clerks; and G. E. Leighty, Order of Railroad Telegraphers.

Much of the material was assembled by a special subcommittee, composed of Messrs. Potter, Cannon, Martin and Flint, plus James K. Knudson, for the I.C.C.; Earl B. Padrick, for the railroads; and William Nixon, for the railway labor organizations. Discussion of the report at the convention was led by Messrs. McDonald, Fowler, Flint, Laughlin and Potter.

Other features of the N.A.R.U.C.'s Little Rock meeting which are of special interest to the railroad industry are covered in the news pages of this issue.

C&O Makes Grain Cars From Automobile Box Cars



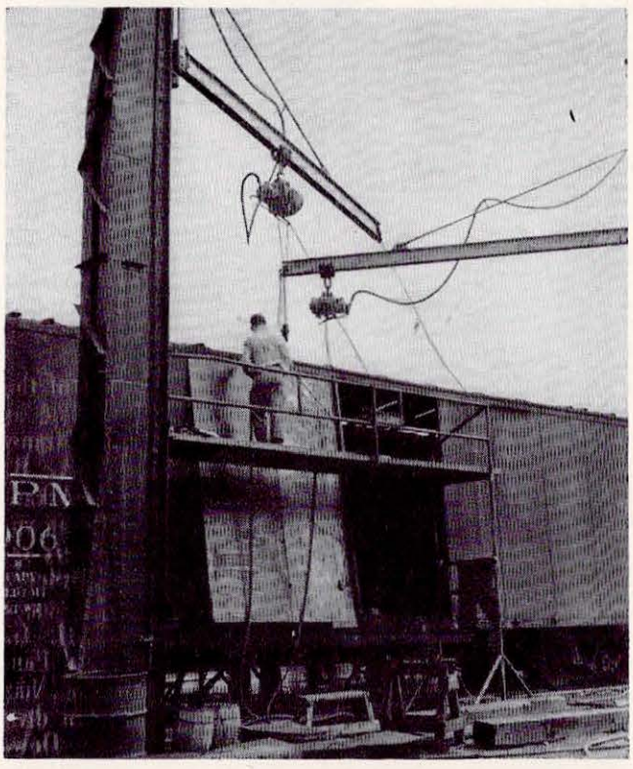
From a group of 600 twenty-year-old double-door automobile cars, the C&O is getting a like number of single-door grain cars.

The Pere Marquette District of the C&O has devised a procedure for making grain-tight cars out of old automobile box cars.

The principle behind this upgrading is the conversion of these double-door cars to single-door cars by substituting a prefabricated steel panel for the auxiliary door on each side. This is done in the course of making general repairs. At the same time the removed door is retained in storage to replace as necessary unfit doors on remaining automobile cars in the series.

The program began last April at the Grand Rapids shops, and is being carried out at the rate of five cars per day. The cars undergoing the upgrading are 40-ton, 40½-ft. automobile cars averaging some 22 years old. Altogether, 600 cars out of a total ownership of 1,500 of this type are being converted for handling such bulk commodities as flour, grain and sugar. The main door in each case is retained on each side of the car, while the auxiliary doors are reconditioned for secondhand replacement doors for the remaining 1,650 cars which use this type door.

The overall job of upgrading, making general repairs to the cars and strengthening the underframe is completed on a production line basis in five stripping and sixteen assembly positions.



The conversion is made by substituting a prefabricated steel panel for the auxiliary door on each side.

Thus the C&O ends up with cars suitable for handling such bulk commodities as sugar, flour and grain.

RAILWAY OFFICERS

EXECUTIVE

(*Continued from page* 18)
counting department of the Midland Valley at Muskogee, Okla. In 1913 he joined the MKT as clerk and special accountant at St. Louis. He then went to Wichita Falls, Tex., as auditor for the Wichita Falls & Northwestern, a Katy subsidiary, and in 1918 returned to St. Louis, becoming auditor the next year. He was appointed general auditor in May 1945 and comptroller in November of that year. Mr. Mahaney was named vice-president—accounting and finance in May 1947.

FINANCIAL, LEGAL & ACCOUNTING

J. T. Stephenson, general auditor of the MISSOURI-KANSAS-TEXAS at St. Louis, has been appointed comptroller; **Elbert Clark,** auditor, succeeds Mr. Stephenson as general auditor of the company. Mr. Stephenson was born at St. Louis on February 3, 1899, and entered Katy service in May 1913 as

J. T. Stephenson

mechanical department clerk at Parsons, Kan. Eight years later he went to Denison, Tex., as shop accountant, transferring to Parsons in 1926. He was appointed traveling auditor out of St. Louis in 1933, assistant auditor at Parsons in 1942, assistant auditor at St. Louis in 1945, auditor in 1947, and general auditor in December 1948.

R. F. Fulton, assistant comptroller—revenues of the NORTHERN PACIFIC, has been appointed assistant comptroller—disbursements and general accounts, with headquarters remaining at St. Paul. He succeeds **George E. Lees,** who has retired. **Carl Pace,** auditor freight accounts, succeeds Mr. Fulton as assistant comptroller—revenues. **F. W. Jackson,** assistant auditor of freight accounts, has been appointed auditor of freight accounts, succeeding Mr. Pace. **E. W. Englund** has been appointed assistant auditor of freight accounts, succeeding Mr. Jackson.

Mr. Fulton entered railway service in 1914 with the NP as a bill clerk at Chehalis, Wash. After holding a number of minor positions in the accounting department on the western lines of the company, he was appointed chief clerk—auditor of passenger and station accounts in 1941, auditor of passenger and station accounts in 1944, assistant general auditor in 1947, and assistant comptroller—revenues in 1948.

Mr. Lees began his railroad service in 1906 with the Chicago Great Western, and worked for the Oregon Short Line, the Chicago, St. Paul, Minneapolis & Omaha, and the Great Northern before entering service with the NP in 1915. He was appointed chief clerk in the accounting department, and rose through that department in various capacities to the position from which he has now retired.

OPERATING

W. G. White, general superintendent of transportation of the RAILWAY EXPRESS AGENCY at New York, retired on October 31, after nearly 48 years in the express business. A native of Fredericksburg, Va., Mr. White began his express career at Norfolk, Va., in 1903, subsequently serving in various positions at Baltimore and Richmond, Va. He served as chief clerk and assistant, successively, to the general manager at Philadelphia and as assistant to general manager of transportation of Eastern departments at New York. After various assignments to specialized duties, Mr. White was appointed superintendent of the Philadelphia division in September 1941 and became general superintendent of transportation at New York in March 1942.

Homer R. Lake, general manager of the department of highway motor transport for the ATCHISON, TOPEKA & SANTA FE, has retired after 47 years of service. He has been succeeded by **W. A. Gammon.** Mr. Lake entered railway service in 1898 as a bill clerk for the Choctaw, Oklahoma & Gulf (now Rock Island). In 1905 he joined the Santa Fe as transportation clerk, and served in numerous operating capacities, culminating in his appointment as superintendent of transportation at Chicago. In 1936 the department of highway motor transport was organized and Mr. Lake was named general manager. Subsequent to organization of that department, the Santa Fe purchased several bus and truck lines and incorporated two subsidiary highway companies, of which he was named vice-president.

Mr. Gammon entered service in 1929 as traffic supervisor of the Southern Kansas Stage Lines, a predecessor of the Santa Fe's highway department. He subsequently held the positions of passenger agent, superintendent, assistant general manager, and general manager, and in November 1946, was named assistant vice-president of both the Santa Fe Trail Transportation Company and Santa Fe Transportation Company. On February 1, 1948, he was appointed assistant general manager of the department of highway motor transport of the railway, with headquarters at Chicago. In March 1949 he was appointed acting general manager.

Abram H. Smith has been appointed general superintendent of dining car service of the NEW YORK CENTRAL at New York, succeeding **Albert E. Yarlott,** retired, and **L. C. Snyder** has been named assistant general superintendent of dining car service at Chicago. Mr. Smith was born at Toleda, Ohio, 50 years ago and has been with the NYC for 29 years, starting as a steward at Chicago. He was promoted to inspector in 1928, assistant superintendent of dining car serv-

Abram H. Smith

ice at Chicago in 1936, assistant to manager of the department at New York in 1939, and assistant general superintendent dining service at New York on February 1, 1946.

Mr. Snyder, a native of Saugerties, N.Y., joined the NYC in 1906 as a busboy at Kingston and subsequently served as steward, chief clerk at Buffalo, and district storekeeper for the department. He was appointed assistant superintendent dining service at Chicago in 1933, and superintendent dining service there in 1936.

J. H. Lloyd, superintendent of the CHICAGO, ROCK ISLAND & PACIFIC at Cedar Rapids, Iowa, has been transferred to Rock Island, Ill.; **A. B. Harrison,** superintendent of theArkansas division, will have charge of an enlarged territory, with headquarters remaining at Little Rock; **R. H. Spicer,** trainmaster at Cedar Rapids, becomes acting superintendent there; **H. G. Dennis,** superintendent of the Panhandle division at Liberal, Kan., has been transferred to the Western division at Fairbury, Neb.; **B. R. Dew,** superintendent of the Missouri-Kansas

division, has had his authority extended to include the present Panhandle division; **G. R. Harter** becomes superintendent of a new Southern division, with headquarters at El Reno, Okla., and **J. H. Hollenbeak,** presently superintendent of the Western division, becomes superintendent of terminals at Kansas City, Kan.

F. R. Doud, assistant general superintendent of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Madison, Wis., has been appointed general superintendent at Minneapolis. He succeeds **D. T. Bagnell,** who has retired. **G. H. Rowley,** division superintendent at Austin, Minn., has been transferred to the Madison division. **M. T. Sevedge,** assistant division superintendent at Milwaukee, has been appointed superintendent of the Iowa and Southern Minnesota division at Austin. **J. D. Simon,** trainmaster at Sioux City, Iowa, becomes assistant superintendent of the Milwaukee division. **W. M. Freund,** trainmaster at Terre Haute, Ind., has been transferred to Sioux City, while **G. J. Barry** has been transferred as trainmaster from Davenport, Iowa, to Terre Haute. **B. J. McCanna,** special assistant to general manager at Chicago, has been appointed trainmaster at Davenport.

Mr. Doud started with the Milwaukee as a telegraph operator in 1907. He subsequently became train dispatcher, chief dispatcher, trainmaster and assistant superintendent. He served as division superintendent at Ottumwa, Iowa, Aberdeen, S.D., and Madison, and has been assistant general superintendent at Madison since July 1951.

Mr. Bagnell began his Milwaukee career in Chicago in 1917. Subsequently he was chief fuel supervisor, trainmaster and assistant superintendent. From 1933 to 1945 he was superintendent of the Twin City Terminals and Duluth division, at Minneapolis. In 1946 he was appointed general superintendent.

Mr. Sevedge started with the Milwaukee in Kansas City in 1937 and served in several capacities before being appointed assistant trainmaster at Austin in 1946. He served successively as trainmaster and as assistant superintendent at several locations before his recent appointment.

R. H. Carter, superintendent of the Mississippi division of the ILLINOIS CENTRAL at Jackson, Tenn., has been named terminal superintendent at New Orleans, succeeding **Samuel J. Massey, Jr.,** whose appointment as general manager of the GRAND TRUNK WESTERN was reported in *Railway Age* November 10, page 73. Succeeding Mr. Carter is **S. C. Jones,** superintendent of the Illinois division at Champaign, Ill. **J. W. Dodge,** superintendent of the Springfield division at Clinton, has been appointed superintendent of the Illinois division at Champaign. **F. A. Fitzpatrick,** assistant to general superintendent of transportation at Chicago, has been made superintendent of the Springfield division at Clinton, and is succeeded by **F. K. Stanford,** trainmaster at Freeport, Ill. **W. R. Johnson** has been appointed trainmaster there.

TRAFFIC

Robert J. Hurst, whose appointment as traffic manager of the ELGIN, JOLIET & EASTERN was announced in *Railway Age* October 13, page 176, entered railroad service in 1920 as an office boy with the EJ&E and has been in continuous service with that company since that time, holding various positions in the traffic department. In 1941 he was appointed assistant general freight agent, in 1947 general freight agent, and in 1948 assistant traffic manager, which position he held at the time of his recent appointment.

Robert J. Hurst

S. F. Witt has been appointed division freight agent of the CHESAPEAKE & OHIO at Detroit, succeeding **R. A. Cornell,** deceased. **T. A. Keefe** has been appointed general agent at Grand Rapids, Mich.

J. R. Barrett, traveling freight and passenger agent of the SOUTHERN PACIFIC at Atlanta, Ga., has been appointed district freight and passenger agent at Jacksonville, Fla., succeeding **Jesse T. Hill,** who has resigned because of ill health.

Alvin C. Hopkins, assistant to vice-president of the Universal Carloading & Distributing Co. at New York, has been appointed manager of industrial development of the DELAWARE, LACKAWANNA & WESTERN at New York.

Harvey L. Willard, coal traffic manager of the NEW YORK CENTRAL SYSTEM, has been appointed general coal traffic manager, with headquarters as before at New York. **Richard K. Horton,** general coal freight agent at New York, has retired after 49 years of service with the NYC. **A. W. Behrens,** general coal freight agent at Detroit, has been transferred to Chicago, succeeding **Frank P. Soen,** who has been named coal traffic manager at New York, to replace Mr. Willard. **Joseph D. Gunther,** general agent at Boston, has been appointed freight agent at Detroit, succeeding **Guy E. Wheeler,** who has been named general coal freight agent there.

Harvey L. Willard

Mr. Willard was born in 1906 at Conneaut, Ohio, and entered the service of the NYC in 1925 at Toledo as a clerk in the freight traffic department. He subsequently served as traveling freight agent at Toledo, city coal freight agent at Detroit and coal freight agent. He was appointed general coal freight agent at Chicago in 1945, assistant freight traffic manager there in 1948, and coal traffic manager at New York in October 1949.

As reported in *Railway Age* October 6, page 138, **James J. Galligan** has been appointed freight traffic manager of the LEHIGH VALLEY at New York. Mr. Galligan entered the service of the LV as clerk in the freight traffic department after a brief association with the Pennsylvania at New York in 1917. He served in various capacities in the tariff bureau until 1936, when he was

James J. Galligan

promoted to chief of divisions bureau. He was appointed assistant general freight agent in 1943 and assistant freight traffic manager in June 1951.

E. F. Schier has been appointed freight traffic manager of the NICKEL PLATE at St. Louis, in place of **R. B. Delafield,** who is on leave of absence due to illness. **Harold Wilding,** general freight agent at Chicago, has been named freight traffic manager at Indianapolis, replacing Mr. Schier. **F. G. Altenburg,** assistant general freight agent at Chicago, becomes general freight agent, succeeding Mr. Wilding. **Harold E. Draper,** also assistant general freight agent at Chicago, has been appointed general freight agent, to replace Mr. Altenburg, while **Harry B. Lewis,** western coal traffic manager at Chicago, becomes assistant general freight agent, succeeding Mr. Draper. **Walter C. Mayo,** coal traffic agent at Cincinnati, has been appointed western coal traffic manager at Chicago, in place of Mr. Lewis.

ENGINEERING AND SIGNALING

R. B. Fetters, district maintenance engineer of the CHICAGO, ROCK ISLAND & PACIFIC at Kansas City, Kan., has become maintenance engineer at Des Moines, Iowa. **R. W. Lucas,** district maintenance engineer, has become maintenance engineer, with headquarters as before at El Reno, Okla.

C. A. Crouch, telegraph engineer of the ATCHISON, TOPEKA & SANTA FE, has been appointed assistant superintendent of communications at Los Angeles, succeeding the late **C. O. Overbey.** Succeeding Mr. Crouch as telegraph engineer at Chicago is **D. R. Weems,** communication engineer at Topeka; succeeding Mr. Weems is **J. H. Nail,** telegraph engineer at Topeka, and succeeding Mr. Nail is **M. D. Breeden,** assistant engineer at Topeka.

Lyle Bristow, division engineer of the NEW YORK CENTRAL at Mattoon, Ill., has been transferred to Springfield, Ohio. He has been succeeded by **R. L. Geiss.**

MECHANICAL

C. A. Gammon, superintendent car department of the FLORIDA EAST COAST, has been promoted to assistant chief mechanical officer, with headquarters as before at St. Augustine, Fla.

Mr. Gammon was born at Cedar Rapids, Iowa, on January 26, 1896, and entered railroad service with the New York, Chicago & St. Louis at Stony Island shops, Chicago, as stock clerk in the stores department, later transferring to the mechanical department. He was with the Illinois Central in the A.A.R. billing department at Chicago until November 17, 1917, when he joined the **Louisville & Nashville** at its South Louisville, Ky., shops. In November 1919 he became piece work inspector with the Ryan Car Company at Hegewische, Ill. Mr. Gammon was general car inspector of the Missouri Pacific prior to entering the service of the FEC on August 1, 1925, in the

C. A. Gammon

same capacity. He was promoted to general car foreman of the Southern division at Miami on April 1, 1929, transferring to St. Augustine on July 1, 1931. He became superintendent car department there on December 1, 1951.

Harold W. Askew, shop superintendent of the GRAND TRUNK WESTERN at Port Huron, Mich., has been appointed assistant general superintendent of car equipment at Battle Creek. **Quentin R. Ling** succeeds Mr. Askew as superintendent of car shops

Harold W. Askew

at Port Huron. Mr. Askew began his career with the Canadian National in 1918 as an assistant tinsmith at London, Ont. He was appointed assistant foreman of the car department at Montreal in 1936, and foreman two years later. In 1944 he was appointed general inspector of shop and methods, and went to Port Huron as superintendent of car shops for the GTW in 1948.

The CHICAGO & NORTH WESTERN has reorganized its mechanical department, "to achieve greater efficiency in servicing and maintenance of its diesel power." **H. H. Magill,** superintendent of motive power at Chicago, will have supervision at all points on the North Western and a part of the subsidiary Chicago, St. Paul, Minneapolis & Omaha. **E. W. Gebhardt,** formerly assistant superintendent, car department, at Chicago is appointed superintendent, car department, for the North Western system, with headquarters as before. **W. P. Miller,** formerly assistant to chief mechanical officer at Chicago, has been appointed assistant superintendent of motive power—diesel, for the North Western system. **A. T. Hitchcock,** formerly general road foreman of engines, becomes superintendent of locomotive operation for the system. **Sam Fesus,** formerly general supervisor of freight car repairs, has been appointed general supervisor of freight and passenger cars for the system. **R. A. Kennard,** road foreman of engines, has been appointed diesel supervisor of the Wisconsin and Madison divisions, and **R. V. Rentsch,** assistant diesel supervisor, becomes diesel supervisor at Chicago. **W. H. McAmis,** superintendent of motive power of the Western district, has been appointed superintendent locomotive and car shops at Chicago, succeeding **O. P. Jones,** who has been appointed district master mechanic of the Galena division and the Southern district of the Galena division at Chicago.

As reported in *Railway Age* November 10, page 74, **H. S. Mercer** has been appointed chief mechanical officer of the SEABOARD AIR LINE at Norfolk, Va. Mr. Mercer was born at Savannah, Ga., on November 9, 1902, and entered railroad service on October 25, 1919, as machinist apprentice with the SAL at Savannah. He subse-

H. S. Mercer

quently served as machinist, roundhouse foreman at Savannah and Hamlet, N.C., and general foreman at Howells, Ga., and Raleigh, N.C. He was ap-

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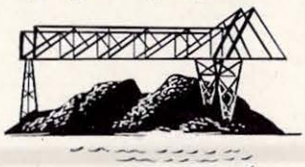
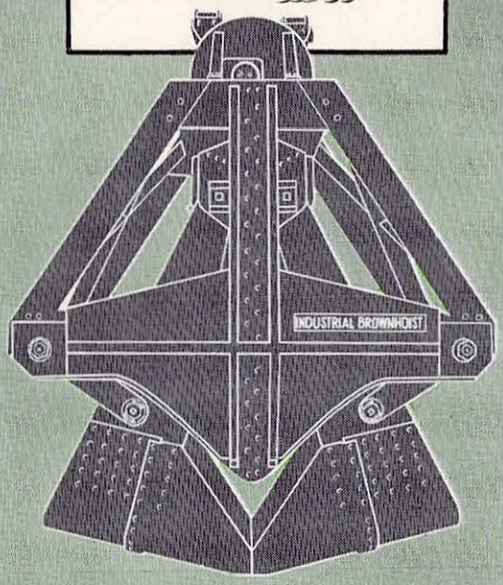
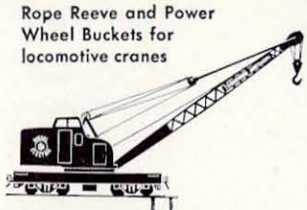
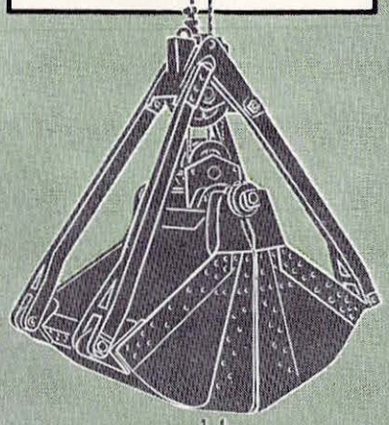
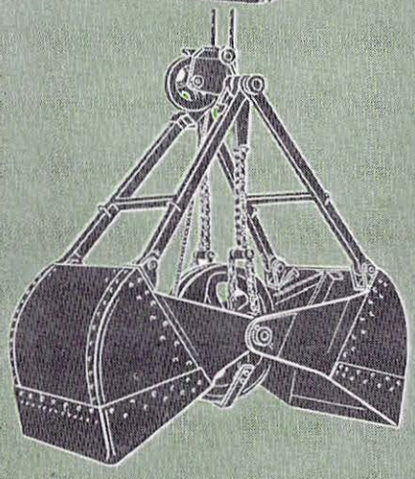




Rope Reeve and Power Wheel Buckets for locomotive cranes







164

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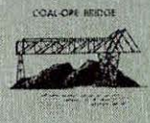

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pointed master mechanic at Howells in May 1943, shop superintendent in the locomotive department at Jacksonville, Fla., in November 1947, and assistant chief mechanical officer at Norfolk in August 1949. Mr. Mercer has been serving as acting chief mechanical officer at Norfolk since April 1 of this year.

As reported in *Railway Age* November 3, page 105, **Rex R. McKinney** has been appointed superintendent motive power of the Central region of the PENNSYLVANIA at Pittsburgh. Mr. McKinney was born at Tyrone Forge, Pa., and entered railroad service as a shop hand on the PRR in 1920. He was graduated from Pennsylvania State College in 1927. In 1929 Mr. McKinney was appointed motive power inspector at Altoona Works, and, after serving in various capacities, became master mechanic at Renovo, Pa., in 1947, subsequently transferring to Harrisburg. In 1950 he was promoted to superintendent locomotive shop, Altoona Works.

PURCHASES AND STORES

As reported in *Railway Age* November 10, page 74, **William G. Jones,** general purchasing agent of the SEABOARD AIR LINE at Norfolk, Va., has retired. Mr. Jones was born at Hickory, N.C., on October 31, 1882, and entered railroad service in January 1902 as locomotive fireman, but after 10 months of this service he became a clerk at the freight station at Louisburg, N.C. Subsequently he served the SAL as a freight brakeman, baggagemaster, conductor, yardmaster, trainmaster, assistant superintendent of the North Carolina division, and superintendent of the East Carolina and North Carolina divisions, successively. Mr. Jones was appointed assistant to vice-president and general manager at Savannah in 1927, assistant to president at

William G. Jones

Norfolk in 1929, assistant to receivers in December 1930, executive assistant to receivers in 1942, and general purchasing agent in September 1944.

William R. Steinmayr, assistant purchasing agent of PULLMAN COMPANY, has been appointed purchasing agent. **Edward L. Hall,** assistant general storekeeper, has been appointed general storekeeper. Mr. Steinmayr began his career in 1922 as an office boy in Pullman's purchasing department. After holding a variety of minor positions in that department he was named assistant purchasing agent in 1950.

William R. Steinmayr

Edward L. Hall

Mr. Hall joined Pullman at St. Louis in 1913 as a mail clerk. In 1924 he became an inspector in the general storekeeper's office, and for the past 16 years has served as assistant general storekeeper.

OBITUARY

James G. Woodworth, who retired as vice-president of the NORTHERN PACIFIC in 1931, but continued to serve in an advisory capacity until 1938, died in St. Paul on November 4. Mr. Woodworth entered railway service in 1879 with the Chicago & North Western, and served with the Union Pacific, the Oregon Railway & Navigation Co., the Iowa Central (now M&StL), the Pacific Coast Company, and the Chicago, Burlington & Quincy prior to joining the NP as traffic manager in 1905. He was named vice-president, traffic, in 1913, served with the U.S. Railroad Administration from 1918 to 1920, and from then until his retirement was vice-president, traffic, of the NP.

Trucker Group Retains Aitchison

Former Interstate Commerce Commissioner Clyde B. Aitchison has been retained as a consultant to the trucking industry's National Traffic Committee.

This was announced by the committee's secretary, F. G. Freund, who also made other announcements with respect to the committee's study programs. Such programs include a cost trend study "to keep . . . motor carriers informed of the overall effect of cost increases in the trucking industry;" and another "designed to promote standardization and ultimate uniformity in motor carrier tariff rules and regulations."

Films for Claim Prevention

A list of motion pictures, slide films and slides dealing with freight loss and damage prevention, yard and freighthouse operation and related subjects has been prepared under direction of C. A. Naffziger, director of (*Continued on page 79*)

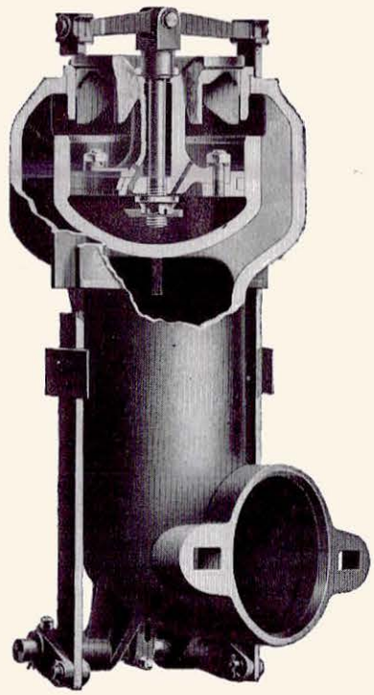
"IRON HORSE" LOUNGE OPENED AT CHICAGO

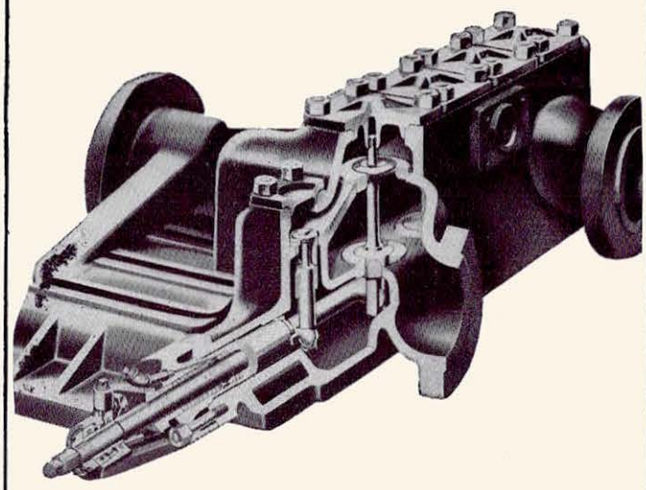
A collection of almost everything a railroad enthusiast could dream of—locomotive bells, whistles, headlamps, etc.—form the decor of Fred Harvey's newly opened "Iron Horse" cocktail room in Chicago's Union Station. Designed by Raymond Lowey Associates, the new lounge preserves, amid modern setting, many reminiscent features of pioneer railroading. There are paper sculptures of early locomotives, draperies and seat covers that feature old-time engineering drawings, a large cast iron bell, and a bar fashioned out of boiler plate and constructed with rivets.

Dependable Throttle Operation

Steam locomotive throttle parts should be as dependable as those they replace...possible only when obtained from the manufacturer who designed and built the original equipment.

Progressively improved designs, special alloys and fine tolerances have been responsible for excellent throttle performance. Therefore, for safe and dependable operation, order your





replacement parts for "American" and "Bradford" throttles from this company.

Similar foresight should also be exercised in the correct maintenance of steam locomotive equipment listed below... genuine replacement parts are also available for those devices.

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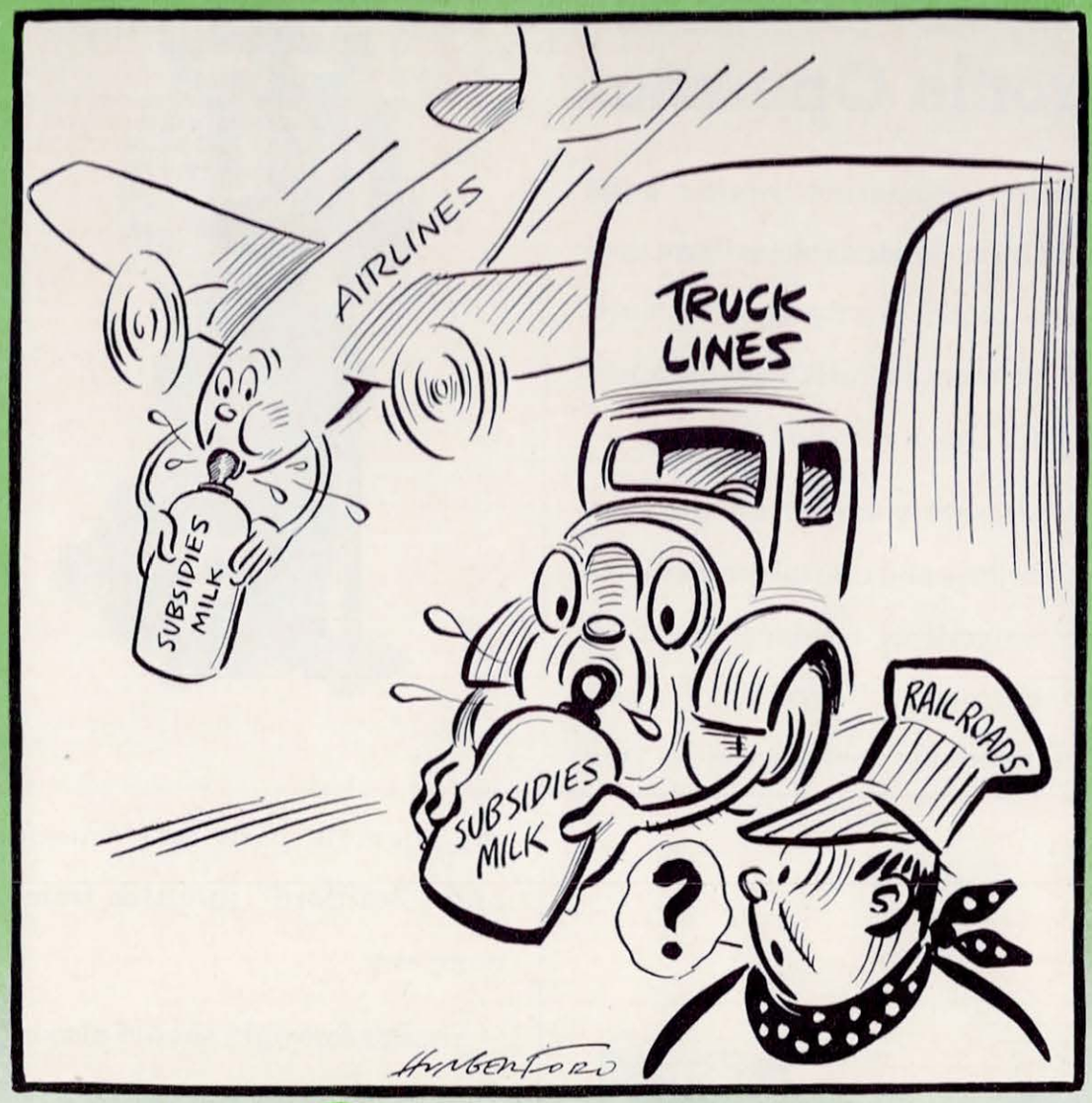
Grownups Still on the Bottle! **By Hungerford**



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ROLLED STEEL TIRES
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and **DRAFT GEARS**

Watch for other railroad cartoons by Mr. Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

(*Continued from page 76*)
the Freight Loss & Damage Prevention Section of the Association of American Railroads.

The list, which contains a brief description of each film and the source from which it may be obtained, divides the available films as follows:

(1) railroad loss and damage prevention films on
  (a) yard operations,
  (b) l.c.l. freight handling, and
  (c) general prevention information;
(2) films dealing with specific commodities;
(3) railroad public relations films;
(4) materials handling and allied subjects; and
(5) catalogs and lists of films available on other subjects.

Copies of the list have been sent to loss and damage prevention officers and operating and transportation officers of all A.A.R. member roads. Mr. Naffziger suggests that films should be booked through their owners at least two to three weeks in advance.

Western Pacific Repeats "Operation Nosebag"

For the second time since he became president, F. B. Whitman invited all of his fellow Western Pacific employees to join him at dinner so that he could bring them a first hand "progress report" of their railroad. The first "operation nosebag" was conducted by Mr. Whitman shortly after he became president of the road as a means of meeting and talking to every employee on the system (*Railway Age*, September 2, 1950, page 50).

The second program (which began on October 28 and continued through November 14) involved a series of dinner meetings at key points along the line. Because WP wives (or husbands) had also been invited to attend, it was necessary in some cases to hold simultaneous dinners at two nearby places. The programs were then staggered so Mr. Whitman could bring his message to each group.

I.C.C. Kills Forwarders' Aggregating Rules

The Interstate Commerce Commission has now condemned rules which it prescribed some nine years ago to govern the consolidation of shipments by freight forwarders.

The condemnation was embodied in a report on reconsideration in No. 28894. The accompanying orders require that the rules involved be removed from forwarder tariffs.

The practices in issue were those under which forwarders aggregated, for billing purposes, the weights of several small packages coming separately from a single shipper or consigned by various shippers to a single consignee. The aggregated billings resulted in lower rates than the individual packages would have taken.

The forwarding industry generally favored discontinuance of the practices. The commission's condemnation of the tariff rules involved was based on its conclusion that "they have resulted in gross discriminations and inequities which the act forbids."

UP Converting Engines From Coal to Oil

"Because of recurring work stoppages at coal mines and the present low supply of coal for railroad fuel," the Union Pacific has announced a program of converting 15 4-6-6-4 steam locomotives from coal to oil.

Most of these locomotives are in regular service in Wyoming territory. During the conversion, a large number of diesel locomotives will be transferred to that district to handle freight assignments. The company pointed out that: "In spite of the fact that we receive coal from company mines in Wyoming, intermittent inadequacies—through occasionally halted mine operations—make it necessary to turn to a more constant fuel supply."

Parmelee of Chicago Seen As Rail Agent, Not Carrier

The Interstate Commerce Commission has been advised to make a finding to the effect that the Parmelee Transportation Company of Chicago is not a carrier subject to Part I of the Interstate Commerce Act.

The advice was given by Examiner G. B. Vandiver in a proposed report in a proceeding (No. 30940) instituted by the commission to determine the status of Parmelee. Meanwhile, the examiner would also have the commission find that the inter-station transfer services performed by Parmelee for railroad passengers and their baggage is covered by Part I and subject to regulation as railroad service. With Parmelee's status thus determined as a terminal-services agent of the Chicago railroads, it would be exempt from regulation as a motor carrier under Part II—except as to qualifications and maximum hours of service of its employees and safety of operations and equipment.

A "DRIVE-IN" TICKET OFFICE

United Air Lines has announced plans for what it terms "the world's first 'drive-in' ticket office" on a main highway 30 miles south of San Francisco. The proposed roadside office will be on El Camino Real—the main highway between San Francisco and suburban communities of the San Mateo peninsula—and will be a white arched-roof structure with glass walls on two sides, trimmed with brick and native redwood. There will be two windows for "drive-in" service. Canopied parking spaces will be provided for motorists desiring to park their cars and come inside the office.

The El Camino Real site was picked for this office because United has found that about 50 per cent of its San Francisco area passengers live in suburban communities on, or reached via, this road.

Amortization Certificates

Certificates of necessity for accelerated tax amortization of facilities were granted to 20 railroads during the period from October 16 through October 22, the Defense Production Administration has announced.

Roads receiving the fast write-off certificates are listed below, together with amounts approved by D.P.A. and the percentages of those amounts which can be written off in five years.

Atlantic Coast Line, $101,682, 40 per cent.
Central of Georgia, $196,700, 50 per cent.
Chesapeake & Ohio, $315,000, 40 per cent.
Chicago, Burlington & Quincy, $5,838,200, 55 per cent; and $3,393,750, 70 per cent.
Cincinnati, New Orleans & Texas Pacific, $29,938, 40 per cent.
Conemaugh & Black Lick, $410,000, 50 per cent.
Georgia Southern & Florida, $96,901, 40 per cent.
Great Northern, $116,718, 50 per cent; and $500,000, 40 per cent.
Gulf, Mobile & Ohio, $26,500, 40 per cent.
Illinois Central, $344,881, 40 per cent.
Kansas City Southern, $686,521, 40 per cent.
Lake Superior & Ishpeming, $240,000, 40 per cent.
Louisville & Nashville, $371,490, 40 per cent.
New York Central, $1,263,780, 40 per cent.
Pennsylvania, $3,558,418, 40 per cent; and $136,387, 50 per cent.
Pittsburgh & Lake Erie, $631,800, 40 per cent.
Southern, $124,829, 40 per cent.
Texas & New Orleans, $127,429, 40 per cent; and $358,000, 40 per cent (the latter figure is subject to review by the Bureau of Internal Revenue and may be reduced).
Western Railway of Alabama, $254,616, 50 per cent.
Wheeling & Lake Erie, $114,917, 40 per cent.

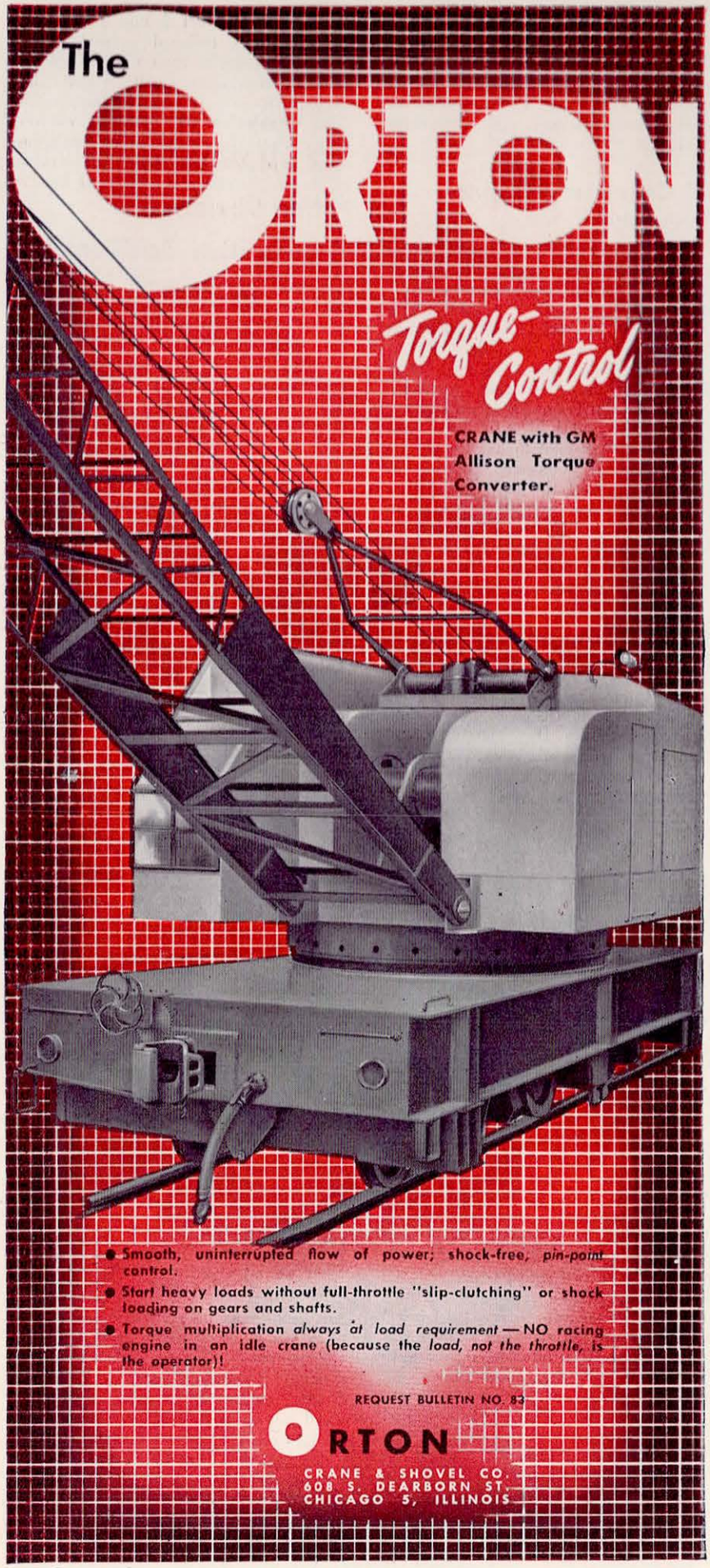
A recent compilation by D.P.A. showed that line-haul operating railroads as of September 5, 1952, had received 869 fast write-off certificates. These certificates represented investments totaling $2,869,990,000. Of this total amount, D.P.A. had approved $1,822,497,000, or 63.5 per cent, for accelerated amortization.

Still pending as of September 5 were applications for an additional 345 certificates, contemplating acquisition of equipment and facilities valued at $177,304,000.

Mass Production Is Key to Lower Track Cost—Curtis

"The cost of track maintenance work has been going up proportionately more than has either the volume of traffic or the income therefrom," John A. Curtis, manager of the Pullman-Standard Car Manufacturing Company's track equipment department, told members of the Pacific Railway Club on October 30.

To reverse this trend, Mr. Curtis continued, the track engineer must master the relatively new technique of mass production "which is dependent on processing, mechanical and human en-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gineering skills—to reduce unit work costs despite rising labor and material costs." Breaking track maintenance into seven general work categories, Mr. Curtis went on to evaluate the relative usefulness of mass production techniques on each in the light of some 30 actual case histories.

Careful maintenance of track machinery is essential, he pointed out. "Too frequently management does not make available adequate funds for the expert maintenance which this high production machinery requires. An engineer told me recently, 'It's easier

Briefly . . .

. . . The last surviving member of the original train crew cut a huge birthday cake in Chicago on November 2 to mark the golden anniversary of the Rock Island-Southern Pacific "Golden State." Passengers aboard the Chicago-Los Angeles streamliner later received slices of another anniversary cake following their evening meal. Members of the Rock Island Rocket chorus presented a special musical program prior to the train's anniversary departure.

. . . Brochures describing advantages of the rail-auto travel plan have been prepared for railroad distribution by the Hertz Driv-Ur-Self System. The brochures, which have provision for an imprint, will be provided to interested railroads and rental licensees without charge.

. . . Reduced rates for the handling of highway trailers between Albany, N. Y., and New York City have been announced by the Trailerships Division of the American & Overseas Chartering Corp. Tractors and motor trucks are now charged for at a rate of $1.35 per lineal foot overall length, regardless of weight. Empty trailers cost $25 each. Loaded trailers with a minimum net weight per trailer of 30,000 lb. cost $40 plus 7 cents for each additional 100 pounds. When a tractor is moved as an integral part of a tractor-trailer unit with a revenue load, an additional charge of $15 is made.

. . . A new travel bureau has been opened by the Chicago & North Western in the main waiting room of its Chicago passenger terminal. Aiming to provide "travel without travail," the new bureau will furnish complete schedule and cost information on all modes of transportation. It will handle tickets and reservations —including hotel rooms and rental autos—and arrangements may be made for group travel anywhere in the U.S. or abroad. The bureau, which is open daily except Sunday, promises to deliver all papers necessary for a trip "in one package."

to get money to maintain a $4,000 truck than it is to get the funds to keep a $40,000 tamper operating efficiently.'"

More effective machinery for tie renewals is in the offing, he revealed. Pointing out that relatively large forces are required to work with present machinery to keep this type of work ahead of mass tamping operations, and that present cost savings are not too great, he said, "some track engineers therefore feel that equipment manufacturers have failed to meet the industry's requirement for mass production type tie renewal equipment. It is believed, however, that this requirement will be met not later than 1954 by at least two companies."

D.T.A. Manpower Bulletin Reports Job Openings

The Manpower Division of the Defense Transport Administration has issued Manpower Bulletin No. 11, showing, among other things, that as of September 30 there were more than 10,000 job openings in the railroad industry.

Based on reports from 120 field offices of the Railroad Retirement Board, the manpower bulletin showed 10,820 railroad jobs were filled during September, and 10,756 openings remained at the end of the month. Vacancies were reported in all job classifications, including 1,016 in the "executive and professional fields."

Another section in the bulletin noted that many railroads now are installing diesel servicing facilities, and plan to do their own maintenance on diesel-electric locomotives. This will, in time, "contribute to retaining an increasing skilled maintenance personnel on these railroad properties," the bulletin stated.

B&M Commuter Fares

The Interstate Commerce Commission has decided not to reconsider its findings of last July wherein the Boston & Maine was ordered to scale down its interstate commuter fares by about 37 per cent.

In October 1951 the I.C.C. authorized a 66 2/3 per cent boost in B&M interstate commuter fares. The July order, which the commission made public in August, cut the increase back to 30 per cent (*Railway Age*, August 18, page 12).

The B&M asked for reconsideration of this July order, but the commission said the road did not present adequate reasons for reopening the case again.

CN Speeds Up L.C.L. Service

Preferential treatment for less-than-carload merchandise traffic has been instituted by the Canadian National. Under the new plan, a spokesman for the road said, l.c.l. shipments will be moved with the same dispatch as per-

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For the railroad man with a serious professional concern in his work and future, *Railway Age* will be a most welcome and thoughtful gift. Throughout all of 1953, it will keep him up to the minute on all phases of this fascinating business of railroading.

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All orders entered will be accepted at the professional rate of $4 for 1 year . . . or $6 for 2 years—if sent *to railroad men only* in the U. S., Canada and Mexico. Rates for non-railroaders available on request.

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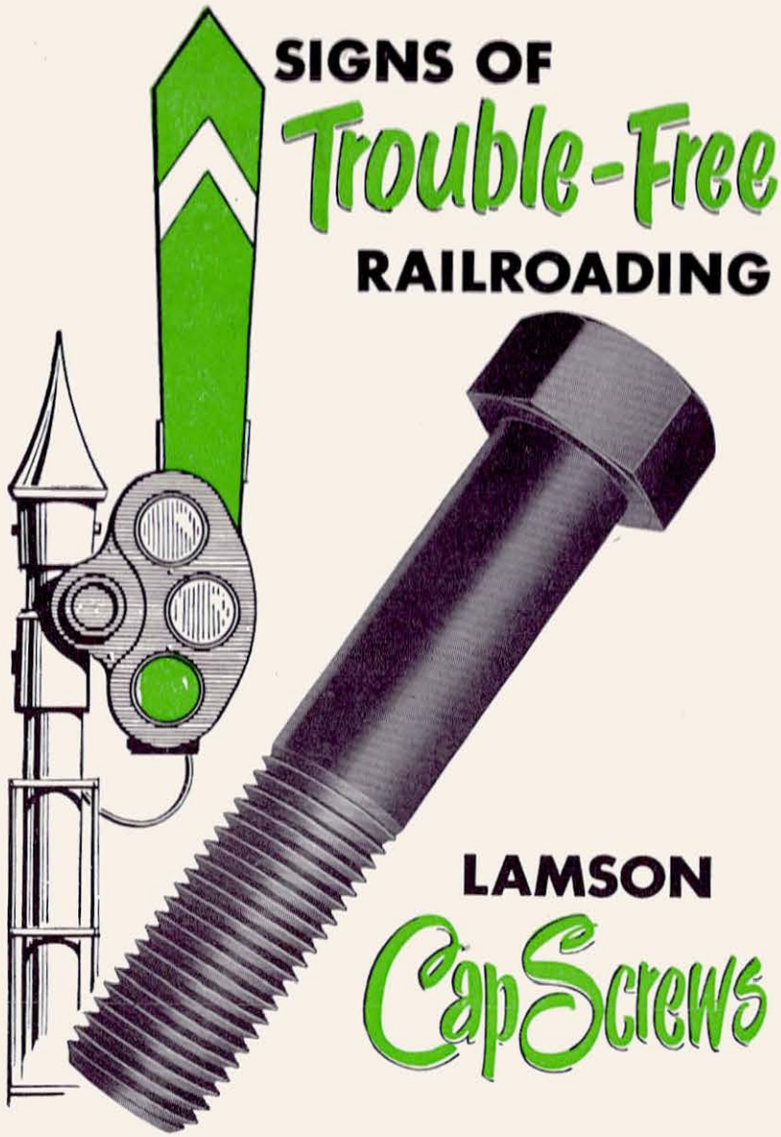

The "all clear" signal is on when Lamson fasteners and the railroads of America team up.

For Cap Screws, Cotters, Machine Bolts and other fastener products by Lamson have long been chosen by the railroads for top dependability and maximum holding strength.

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ishable and livestock traffic. Distinctive placards of bright yellow centered with a green ball have been placed on cars carrying such freight and they will receive priority handling at stations, freight sheds and distribution points across the system. The new service is designed to give l.c.l. shipments the speed of scheduled fast freights. L.c.l. shipments will be delivered overnight Toronto to Montreal and on the fourth morning from Montreal to Halifax, N.S.

$575 Million Apportioned For Federal-Aid Highways

The Department of Commerce's Bureau of Public Roads has apportioned to the states the $575 million authorized as federal-aid for highways in the fiscal year beginning July 1, 1953. The bureau has also apportioned another $22.5 million authorized to be spent on highways in national forests.

The $575 million includes $25 million for the "National System of Interstate Highways." This is the first time that funds have been provided specifically for that system.

Other items are $247.5 million for the so-called primary system of federal-aid highways; $165 million for the secondary system; and $137.5 million for federal-aid highway projects in urban areas.

The funds apportioned are those authorized by the Federal-Aid Highway Act of June 25, 1952. They will be available for expenditure until June 30, 1956.

Diesel Buses Called Safest; Tired Driver Caused Crash

Reporting on its investigation of a head-on collision between two buses of Southwestern Greyhound Lines, the Interstate Commerce Commission has recommended that operators and manufacturers give consideration to "wider use of diesel power in buses for safety reasons." The report found that the accident, in which 26 passengers and both drivers were killed, "was caused by operation of a bus by a fatigued driver."

The report, by Commissioner Arpaia, was designated Motor Carrier Investigation Report No. 1. It was the first to be issued pursuant to the commission's recently announced plans to make such reports. The investigation out of which it came was conducted by the Section of Safety of the Bureau of Motor Carriers.

The collision occurred on August 4 near Waco, Tex. Fire broke out and "totally destroyed" both buses. The fatalities included all persons on one of the buses which used gasoline for fuel. The other was diesel-fueled, and 25 of its passengers escaped death in the accident.

"It is significant of the relative hazards as between gasoline and diesel

oil for fuel, that all survivors in this accident were passengers on the diesel-powered bus," the commission said in leading up to the recommendation noted above. It was also said, that "push-out" windows, with which the diesel bus was equipped, facilitated escapes of several of the survivors.

ORGANIZATIONS

1952 A.S.M.E. Annual Meeting

"Building for the Future of America" is the theme of the 1952 annual meeting of the American Society of Mechanical Engineers, which will be held at the Hotels Statler and McAlpin, New York, November 30 to December 5, inclusive The President's luncheon is scheduled for 12:15 p.m. Monday, December 1, and the annual banquet Wednesday, December 3. The Roy V. Wright lecture will be delivered at a luncheon at 12:15 p.m., Wednesday, when Alfred H. Williams, president of the Federal Reserve Bank of Philadelphia, will discuss "Business Leadership in a Democracy." Other sessions of interest to railroad men are listed below.

The National Exposition of Power and Mechanical Engineering under auspices of the A.S.M.E. in conjunction with its annual meeting, will be held at Grand Central Palace, New York, December 1-6.

MONDAY, DECEMBER 1
2:30 p.m.

Gas Turbine Power (II)—Fuels (II)—Power (II)
Residual Fuel-Oil Ash Corrosion, by B. O. Buckland, C. M. Gardiner, and D. G. Sanders, General Electric Company.
Use of Residual Fuel Oils in Gas Turbines, by Philip Draper, Shell Petroleum Company.

TUESDAY, DECEMBER 2
9:30 a.m.

Fuels (IV)—Power (IV)
Combustion of Pulverized Coal in Water-Cooled Radiant Tubes, by R. A. Sherman, Battelle Memorial Institute; R. T. Sawyer, Steam Locomotive Research Institute, and G. E. Keinath, Battelle Memorial Institute.
Development of a Vaporizing Oil Burner, by J. A. Johnson and E. H. Eustis, Thermal Research & Engineering Corp.
Pulverized-Coal Gasification—Ruhrgas Processes, by Kurt Traenckner, Essen, Germany.

2:30 p.m.

Oil and Gas Power (I)—Railroad (I)
Crankcase Explosions, by Experimental Department, Fairbanks, Morse & Co.
Combustion of a Low-Volatility Fuel in a Turbo-Jet Combustion Chamber—Effects of Fuel Vaporization, by Phil Myers, University of Wisconsin.

WEDNESDAY, DECEMBER 3
9:30 a.m.

Materials Handling (VII)—Railroad (II)
Development of Wage-Incentive Standards for a Warehousing and Shipping Operation, by Paul J. MacCutcheon, Nestle Company.
Techniques for Development of Time Standards for Materials Handling and Indirect Labor Situation, by W. J. Richardson, Lehigh University.
Standard Performance Time Studies for Fork Truck Operation (a current research project).

12:15 p.m.

Fuels Division Luncheon. Subject: Fuels in a Technical Economy, by Frederic O. Hess, president, Selas Corporation of America.

(Continued on page 84)

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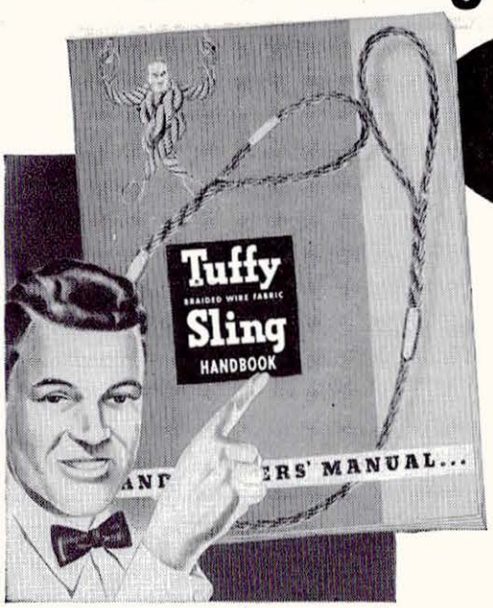

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(*Continued from page 83*)

2:30 p.m.

Oil and Gas Power (IV)—Railroad (III)—Lubrication (I)—A.S.T.M.

Diesel Maintenance Control by Spectrographic Means, by Harold R. Sennstrom, American Locomotive Company.

Diesel Lubricating-Oil Performance as Related to the Electron Microscope, by Ray McBrian, Denver & Rio Grande Western.

7:30 p.m.

Banquet.

THURSDAY, DECEMBER 4

9:30 a.m.

Railroad (IV)

Survey—Progress in Railway Mechanical Engineering, 1951-52, by T. F. Perkinson, General Electric Company.

A Method for Determining Stresses and Vibration Data in Brake Beams Under Actual Operating Conditions, by R. B. Cottrell, American Steel Foundries.

2:30 p.m.

Railroad (V)—Gas-Turbine Power (VIII)—A.I.E.E.

Gas-Turbine Electric Locomotives on the Union Pacific, by A. H. Morey, General Electric Company, and F. Fahland, research and standards engineer, UP.

Operation of Westinghouse-Baldwin Gas-Turbine Locomotive, by T. L. Weybrew, C. Kerr, Jr., and T. J. Putz, Westinghouse Electric Corporation.

One Transportation Club For Greater Dallas?

Members of the Traffic Club of Dallas (Tex.), and of the Motor Freight & Industrial Transportation Club, have been asked to consider a constitution which would create a single transportation club embracing the greater Dallas area. The move has been endorsed by the Industrial Traffic Managers Association of Dallas, the governors of the traffic club, and the directors of the motor club. If ratified by the membership of the latter groups, the new club would replace them entirely and would embrace all members in good standing of each.

The new club would be known as the Transportation Club of Dallas. It will probably be activated about January 1, if the plan is approved.

The Car Foremen's Association of Chicago has elected the following officers for the ensuing year: President, J. F. Monger, shop superintendent, Illinois Central; first vice-president, H. A. Harris, master car builder, Gulf, Mobile & Ohio; second vice-president, H. L. Hewing, superintendent, Chicago Car Interchange Bureau; secretary-treasurer, W. R. McCain, mechanical assistant, Mather Stock Car Company.

Philander Cooke, president of Cooke's Express Company, New Haven, Conn., has been elected president of the **Connecticut Quarter-Century Traffic Club.** Other officers elected were: Vice-president, John J. Murphy, freight traffic manager, New York, New Haven & Hartford; secretary, John F. Maerz, executive vice-president, Motor Transport Association of Connecticut; and treasurer, Leo N. Mitchell, traffic manager, International Silver Company.

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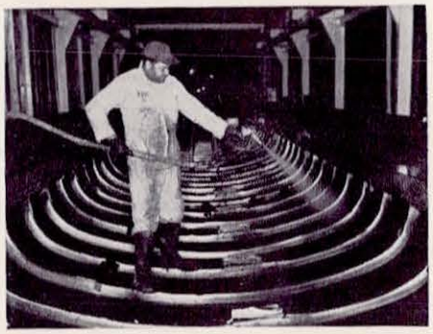

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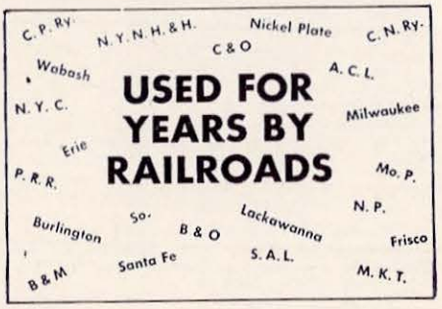

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Transportation Club of Seattle will formally install its newly elected officers at the annual dinner of the transportation club to be held on January 17 at the Olympic Hotel. They are: President, M. Melvin Davis, Jr., of United Air Lines; vice-president, P. Laurin Cowling, of the Milwaukee; and secretary-treasurer, Jay A. Colwell, of the Santa Fe.

An eastern regional conference sponsored by the **New York Society of Security Analysts** will be held on November 24 at the Hotel Statler, New York, with a series of field trips scheduled for November 25. Perry M. Shoemaker, president, Delaware, Lackawanna & Western; Harry W. Von Willer, vice-president, Erie, and Walter F. Hahn, Smith Barney & Co., will discuss "Problems of the Eastern Railroads."

At the next meeting of the **New York Railroad Club,** to be held in the Century Room of the Hotel Commodore at 8:15 p.m., November 20, the program will include brief addresses by R. C. Champlin, vice-president—public relations of the Pennsylvania; D. I. Mackie, vice-president and general counsel of the Delaware, Lackawanna & Western; and J. G. Lyne, editor, *Railway Age*. All the speakers are members of the subcommittee on public relations of the Eastern Railroad Presidents Conference, and will explain the effort to obtain modernized national transportation legislation in the next session of Congress. A reception period starting at 6 p.m. and a dinner at 7 will precede the meeting.

The **Stock Yards District Traffic Club** (Chicago) will hear how day-to-day operations are carried on at the Illinois Central's Markham yard from J. M. O'Conner, superintendent of freight terminals for the IC, who will be guest speaker at the club's November 20 luncheon meeting in the Central Manufacturing District Club rooms.

The **Central Western Shippers Advisory Board** will hold its 66th regular meeting at Omaha, Neb., on December 8 and 9.

National headquarters have been opened for the **American Society of Traffic & Transportation** at 511 Board of Trade building, Indianapolis, Ind. Florence C. Conner, assistant secretary-treasurer, will be in charge of the office.

The **Traffic Club of Minneapolis** will hear a talk by E. Grosvenor Plowman, vice-president — traffic of the United States Steel Company, and past president of the American Society of Traffic and Transportation, at the club's 37th annual dinner, to be held on December 4 at the Hotel Nicollet.

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Freight Operating Statistics of Large Railways — Selected Items

	Region, Road and Year		Miles of road operated	Train-miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (thousands)	Car Miles: Per cent loaded	Ton-Miles (thousands): Gross excl. locos. & tenders	Ton-Miles (thousands): Net rev. and non-rev.	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per Cent B.O.
New Eng. Region	Boston & Maine	1952	1,690	245,876	252,620	11,957	9,400	71.4	584,031	252,557	77	10	10	10.3
		1951	1,691	263,756	271,942	14,004	10,170	71.8	630,467	276,565	81	6	10	10.3
	N. Y., N. H. & Htfd.	1952	1,765	284,659	284,818	15,156	10,913	69.3	701,123	317,003	99	..	1	1.0
		1951	1,766	297,454	297,605	19,836	11,326	69.8	707,699	314,014	93	..	6	5.9
Great Lakes Region	Delaware & Hudson	1952	793	228,542	256,778	13,522	10,722	73.0	738,072	398,737	83	38	15	11.0
		1951	793	252,615	292,275	20,195	11,158	74.2	770,088	425,753	121	13	34	20.2
	Del., Lack. & Western	1952	962	268,516	282,235	22,178	12,853	73.5	825,118	391,391	74	5	3	3.7
		1951	964	276,630	296,339	24,124	12,419	71.1	813,948	379,742	77	12	9	9.2
	Erie	1952	2,242	609,017	618,176	35,847	35,740	69.8	2,217,162	915,575	170	4	3	1.7
		1951	2,243	654,614	666,921	36,725	35,730	67.5	2,284,900	939,075	182	26	15	6.7
	Grand Trunk Western	1952	952	233,885	241,767	2,268	8,270	65.6	555,402	243,722	55	..	13	19.1
		1951	952	262,123	267,417	2,189	8,759	66.9	590,526	265,549	55	1	12	17.6
	Lehigh Valley	1952	1,206	226,579	230,198	11,361	13,417	79.7	783,954	389,091	31	3	..	..
		1951	1,211	255,962	267,381	21,568	12,878	72.0	878,770	431,288	42	5	8	14.5
	New York Central	1952	10,668	2,639,946	2,715,835	117,488	104,259	64.6	7,340,212	3,411,804	752	140	229	20.4
		1951	10,675	2,960,283	3,121,868	165,096	109,820	63.2	7,845,500	3,588,005	963	121	336	23.7
	New York, Chic. & St. L.	1952	2,160	757,151	780,309	8,725	30,363	69.4	2,094,878	979,991	187	13	50	20.0
		1951	2,161	798,612	821,172	11,170	31,512	68.0	2,187,299	1,023,219	202	18	37	14.4
	Pitts. & Lake Erie	1952	221	77,509	78,505	85	3,694	73.8	308,139	197,949	31	5	14	28.0
		1951	221	94,344	97,234	.....	4,232	74.4	341,173	215,342	37	..	10	21.3
	Wabash	1952	2,381	492,417	497,154	8,440	21,862	70.6	1,391,244	595,054	108	30	36	20.7
		1951	2,381	528,621	536,120	7,810	22,067	71.7	1,406,655	628,337	150	15	29	14.9
Central Eastern Region	Baltimore & Ohio	1952	6,082	1,588,503	1,783,604	184,646	68,156	66.5	5,128,058	2,607,455	532	59	168	22.1
		1951	6,083	1,825,769	2,124,372	235,758	73,790	64.9	5,605,054	2,869,746	640	78	168	19.0
	Central of New Jersey	1952	411	71,358	71,590	3,636	2,839	67.6	208,301	109,023	23	1	1	4.0
		1951	410	75,732	75,990	3,525	2,946	68.7	218,406	116,431	42	..	5	10.6
	Central of Pennsylvania	1952	207	62,002	67,324	9,106	2,646	69.9	192,955	104,232	32	3	4	10.3
		1951	210	71,473	78,637	12,246	2,724	72.3	197,839	109,358	32	..	5	13.5
	Chicago & Eastern Ill.	1952	868	126,547	126,547	2,707	5,144	72.4	332,422	165,787	27	..	3	10.0
		1951	886	132,029	132,029	3,520	5,179	70.9	337,826	167,086	27	..	3	10.0
	Elgin, Joliet & Eastern	1952	236	87,094	88,151	602	3,413	70.4	266,626	152,195	41	..	1	2.4
		1951	238	105,099	107,801	1,000	4,266	66.5	345,200	195,039	43	..	..	..
	Pennsylvania System	1952	9,961	2,875,194	3,100,011	306,956	130,699	61.8	9,265,560	4,639,572	1,017	93	374	25.2
		1951	10,045	3,282,524	3,569,024	397,216	140,659	67.7	10,083,289	5,134,055	1,182	104	320	19.9
	Reading	1952	1,318	336,857	343,377	19,725	13,702	65.8	1,067,809	579,918	187	15	33	14.0
		1951	1,311	374,186	384,568	26,175	13,742	67.7	1,057,154	581,791	174	32	28	12.0
	Western Maryland	1952	836	174,581	199,857	23,562	6,117	66.2	490,435	278,748	119	17	12	8.1
		1951	837	186,737	221,021	26,500	6,598	65.3	531,304	298,599	125	8	17	11.3
Pocahontas Region	Chesapeake & Ohio	1952	5,036	1,242,375	1,279,804	39,844	59,582	58.3	5,064,691	2,844,966	417	72	178	26.7
		1951	5,042	1,538,819	1,619,269	71,979	72,470	58.5	6,287,218	3,558,817	497	3	243	32.7
	Norfolk & Western	1952	2,113	648,886	687,177	47,477	31,037	61.5	2,690,377	1,478,734	217	38	22	7.9
		1951	2,113	805,394	859,925	67,046	38,173	58.8	3,432,997	1,895,880	244	11	21	7.6
Southern Region	Atlantic Coast Line	1952	5,460	765,000	765,216	8,099	23,852	62.6	1,719,134	819,927	268	16	32	10.1
		1951	5,434	759,614	760,041	12,238	23,751	62.7	1,683,526	788,096	374	26	133	25.0
	Central of Georgia	1952	1,754	199,948	205,641	2,804	7,390	69.2	492,725	230,904	97	11	1	.9
		1951	1,765	241,432	242,671	3,996	7,339	69.9	487,906	229,638	84	5	21	19.1
	Gulf, Mobile & Ohio	1952	2,718	321,922	321,922	178	17,119	73.0	1,125,770	560,317	87	..	2	2.2
		1951	2,351	308,533	308,533	173	16,358	74.3	1,057,981	520,449	80	..	3	3.6
	Illinois Central	1952	6,539	1,483,887	1,487,491	50,036	52,762	64.3	3,798,006	1,785,405	526	40	80	12.4
		1951	6,539	1,562,994	1,567,661	54,570	54,929	63.6	3,998,575	1,881,864	558	33	70	10.6
	Louisville & Nashville	1952	4,756	933,371	978,004	22,707	33,744	64.3	2,457,074	1,248,628	229	82	54	14.8
		1951	4,756	1,085,061	1,158,968	31,706	36,453	64.3	2,692,632	1,389,506	324	29	77	17.9
	Nash., Chatt. & St. Louis	1952	1,032	195,458	198,756	3,152	6,423	73.9	412,936	201,121	49	8	5	8.1
		1951	1,049	177,356	179,801	2,800	6,218	75.4	392,310	191,152	53	..	6	10.2
	Seaboard Air Line	1952	4,135	564,014	564,014	1,204	21,987	65.1	1,530,468	711,668	135	72	6	2.8
		1951	4,136	618,551	618,551	1,557	22,072	64.4	1,561,622	727,659	169	92	63	19.4
	Southern	1952	6,264	1,058,725	1,058,800	12,909	40,449	71.6	2,536,779	1,177,329	301	62	65	15.2
		1951	6,292	1,141,951	1,148,763	14,187	40,571	71.9	2,557,466	1,192,250	369	36	91	18.3
Northwestern Region	Chicago & North Western	1952	7,872	921,288	931,089	19,800	37,570	66.8	2,693,293	1,164,670	322	5	107	24.7
		1951	7,893	1,027,158	1,049,903	25,758	37,727	63.6	2,734,286	1,226,128	334	8	140	29.0
	Chicago Great Western	1952	1,441	155,355	155,355	3,442	9,584	71.4	650,447	313,882	34	..	1	2.9
		1951	1,441	157,975	157,975	7,950	9,102	71.8	610,706	290,841	31	..	1	3.1
	Chic., Milw., St. P. & Pac.	1952	10,663	1,266,265	1,308,676	45,410	52,141	63.6	3,665,610	1,670,251	427	39	69	12.9
		1951	10,664	1,305,292	1,357,000	49,568	50,016	64.9	3,539,364	1,652,769	443	61	59	10.5
	Chic., St. P., Minn. & Omaha	1952	1,606	205,552	210,670	8,656	6,476	70.8	442,828	208,790	68	..	31	31.3
		1951	1,606	223,775	231,635	11,286	6,538	66.9	479,100	231,978	72	..	32	30.8
	Duluth, Missabe & Iron Range	1952	569	225,064	226,565	2,254	10,012	50.0	1,071,770	650,907	77	..	8	9.4
		1951	566	230,035	231,373	2,131	10,465	51.2	1,080,808	647,557	66	..	7	9.6
	Great Northern	1952	8,181	1,276,550	1,282,210	47,309	52,559	62.1	4,142,946	2,118,044	352	112	46	9.0
		1951	8,309	1,157,841	1,160,865	44,395	47,964	65.7	3,663,269	1,905,228	356	91	60	11.8
	Minneap., St. P. & S. S. M.	1952	4,172	443,611	450,610	4,444	15,953	65.4	1,125,361	554,755	115	..	4	3.4
		1951	4,173	468,865	479,545	6,341	15,562	62.5	1,129,883	547,104	117	..	8	6.4
	Northern Pacific	1952	6,585	989,891	1,022,698	44,752	41,679	64.9	2,936,254	1,340,111	333	8	59	14.8
		1951	6,591	907,834	939,148	49,974	38,945	70.0	2,713,515	1,294,336	327	18	70	16.9
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1952	13,072	2,385,237	2,488,655	99,899	99,906	66.7	6,623,997	2,640,620	588	56	103	13.8
		1951	13,097	2,663,148	2,786,747	122,249	107,298	63.7	7,346,676	2,685,474	659	53	135	15.9
	Chic., Burl. & Quincy	1952	8,773	1,252,275	1,263,617	47,839	53,090	67.1	3,551,900	1,611,576	335	27	99	21.5
		1951	8,790	1,336,350	1,357,717	51,867	56,063	64.4	3,923,548	1,792,685	356	20	126	25.1
	Chic., Rock I. & Pac.	1952	7,902	958,523	967,096	7,900	35,290	66.0	2,482,899	1,107,660	187	39	39	14.7
		1951	7,902	1,052,092	1,065,553	15,474	36,142	64.0	2,530,463	1,162,828	221	23	79	24.5
	Denver & R. G. Wn.	1952	2,333	432,189	473,450	52,818	19,749	72.3	1,317,396	597,094	105	24	27	17.3
		1951	2,334	358,608	391,979	45,256	16,492	72.7	1,102,223	520,676	114	29	25	14.9
	Southern Pacific	1952	8,059	2,485,104	2,631,852	304,494	106,185	63.4	7,414,111	2,978,928	699	4	157	18.3
		1951	8,055	2,367,051	2,502,952	354,528	100,495	63.8	6,944,507	2,791,404	718	8	167	18.7
	Union Pacific	1952	9,843	2,978,307	3,099,560	200,855	120,768	64.3	8,326,552	3,445,274	632	21	143	18.0
		1951	9,756	2,707,218	2,815,218	191,764	116,583	67.0	7,892,336	3,413,532	600	25	161	20.5
	Western Pacific	1952	1,190	293,609	300,509	19,603	14,810	69.4	928,455	399,120	38	9	3	6.0
		1951	1,190	250,897	256,582	19,911	12,742	74.8	794,047	371,808	53	13	18	21.4
Southwestern Region	International-Gt. Northern*	1952	1,104	167,190	167,190	59	5,998	67.7	469,847	211,153	46	8	7	11.5
		1951	1,104	205,408	205,408	843	7,144	69.3	506,981	245,838	44	1	14	23.7
	Kansas City Southern	1952	886	167,390	167,390	71	9,034	70.5	617,243	297,678	26	5	7	18.4
		1951	886	171,833	171,844	267	9,186	70.0	616,968	294,156	26	8	26	43.3
	Mo.-Kans.-Texas Lines	1952	3,230	391,201	391,201	4,487	15,002	67.5	951,521	416,206	89	10	8	7.5
		1951	3,230	422,624	425,299	7,510	16,134	67.8	1,059,616	472,698	88	6	15	13.8
	Missouri Pacific*	1952	6,932	1,233,763	1,237,855	17,038	47,364	67.5	3,238,160	1,458,392	295	36	60	15.3
		1951	6,932	1,323,451	1,346,485	19,196	51,061	68.2	3,449,597	1,581,422	355	6	60	14.3
	Texas & Pacific	1952	1,832	323,244	323,244	4,373	13,373	63.8	931,650	370,229	63	7	6	7.9
		1951	1,844	384,394	384,394	21,112	14,600	59.4	1,065,145	398,528	67	11	41	34.5
	St. Louis-San Francisco	1952	4,567	637,144	637,144	6,135	24,710	64.8	1,689,527	752,775	184	15	25	11.2
		1951	4,570	675,333	679,994	7,024	23,983	64.1	1,640,729	734,253	193	75	101	27.4
	St. Louis Southw. Lines	1952	1,562	331,351	331,545	4,504	14,025	75.7	839,470	375,255	58	16	13	14.9
		1951	1,562	356,602	361,486	4,793	14,750	71.7	909,783	406,685	78	10	18	17.0
	Texas & New Orleans	1952	4,280	765,469	766,069	22,747	28,057	64.5	1,935,557	834,830	215	..	33	13.3
		1951	4,291	821,452	821,838	17,907	28,185	65.9	1,903,817	817,684	235	..	38	13.9

For the Month of August 1952 Compared with August 1951

Region	Road and Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos and tenders	G.t.m.per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Mile per loco. per day
New Eng. Region	Boston & Maine 1952	1,326	7,711	9,037	3.3	38,491	2,379	1,029	26.9	922	48.0	4,821	16.2	93.2
	1951	1,229	8,692	9,921	1.8	37,193	2,397	1,052	27.2	883	45.2	5,276	15.6	101.5
	N. Y., N. H. & Htfd. 1952	1,425	13,901	15,326	3.6	35,530	2,465	1,114	29.0	692	34.4	5,794	14.4	111.6
	1951	1,416	15,187	16,603	3.1	34,627	2,280	1,056	27.7	596	30.8	5,736	14.6	119.6
Great Lakes Region	Delaware & Hudson 1952	5,030	5,243	10,273	3.4	60,182	3,247	1,754	37.2	1,175	43.3	16,220	18.6	72.2
	1951	3,014	5,838	8,852	6.3	55,318	3,064	1,694	38.2	1,514	53.5	17,319	18.1	63.5
	Del., Lack. & Western 1953	4,435	11,226	15,661	5.1	50,016	3,117	1,479	30.5	865	38.7	13,124	16.3	137.7
	1951	4,228	10,635	14,863	6.5	45,099	2,996	1,398	30.6	796	36.7	12,707	15.3	119.2
	Erie 1952	7,593	21,133	28,726	3.5	64,610	3,680	1,519	25.6	1,060	59.2	13,173	17.7	133.7
	1951	6,350	22,372	28,722	3.3	59,955	3,521	1,447	26.3	1,048	59.1	13,505	17.2	110.6
	Grand Trunk Western 1952	3,455	9,736	13,191	4.5	45,761	2,393	1,050	29.5	602	31.1	8,258	19.3	129.3
	1951	3,743	9,506	13,249	4.7	45,058	2,271	1,021	30.3	658	32.4	8,998	20.0	137.8
	Lehigh Valley 1952	4,643	8,085	12,728	6.7	62,481	3,525	1,750	29.0	1,012	43.8	10,407	18.1	237.2
	1951	2,142	13,464	15,606	7.4	65,200	3,484	1,710	33.5	909	37.7	11,488	19.0	185.4
	New York Central 1952	72,781	97,608	170,389	8.6	46,727	2,827	1,314	32.7	699	33.1	10,317	16.8	91.6
	1951	54,305	115,302	169,607	6.3	42,790	2,693	1,232	32.7	698	33.8	10,842	16.1	82.7
	New York, Chic. & St. L. 1952	6,369	18,029	24,398	7.4	48,235	2,818	1,318	32.3	1,317	58.8	14,635	17.4	110.8
	1951	4,911	18,792	23,703	4.6	48,102	2,783	1,302	32.5	1,302	59.0	15,274	17.6	113.9
	Pitts. & Lake Erie 1952	5,629	10,872	16,501	6.1	57,921	3,985	2,560	53.6	462	11.7	28,893	14.6	55.6
	1951	3,534	10,796	14,330	8.9	57,033	3,625	2,288	50.9	451	11.9	31,432	15.8	72.9
	Wabash 1952	7,661	13,210	20,871	6.4	61,073	2,845	1,217	27.2	926	48.2	8,062	21.6	101.2
	1951	7,190	12,821	20,011	6.2	54,173	2,682	1,198	28.5	1,003	49.1	8,513	20.4	93.9
Central Eastern Region	Baltimore & Ohio 1952	53,404	44,227	97,631	8.4	46,065	3,269	1,662	38.3	858	33.7	13,830	14.3	87.6
	1951	44,015	54,943	98,958	5.8	42,438	3,107	1,591	38.9	912	36.2	15,218	13.8	89.2
	Central of New Jersey 1952	412	8,034	8,446	4.2	36,170	3,069	1,606	38.4	418	16.1	8,557	12.4	137.8
	1951	467	9,246	9,713	3.1	37,546	3,011	1,605	39.5	392	14.4	9,161	13.0	87.8
	Central of Pennsylvania 1952	1,913	2,568	4,481	19.5	44,327	3,287	1,776	39.4	664	24.1	16,243	14.2	73.1
	1951	1,576	3,248	4,824	19.6	41,450	2,977	1,645	40.1	722	24.9	16,798	15.0	101.0
	Chicago & Eastern Ill. 1952	2,399	3,180	5,579	4.2	43,318	2,635	1,314	32.2	940	40.3	6,161	16.5	156.4
	1951	1,473	2,747	4,220	10.5	41,360	2,567	1,269	32.3	1,261	55.1	6,083	16.2	158.6
	Elgin, Joliet & Eastern 1952	7,469	12,210	19,679	5.2	22,247	3,179	1,815	44.6	263	8.4	20,803	7.3	96.3
	1951	5,724	15,030	20,754	2.8	21,388	3,427	1,936	45.7	310	10.2	26,435	6.5	120.2
	Pennsylvania System 1952	102,624	102,257	204,881	10.6	51,155	3,308	1,657	35.5	733	30.3	15,025	15.9	79.8
	1951	94,356	116,461	210,817	8.6	47,400	3,175	1,617	36.5	788	31.9	16,487	15.4	87.1
	Reading 1952	13,051	18,227	31,278	6.7	41,222	3,171	1,722	42.3	577	20.7	14,193	13.0	60.6
	1951	9,871	20,690	30,561	4.7	35,865	2,827	1,556	42.3	624	21.8	14,315	12.7	70.3
	Western Maryland 1952	5,161	2,991	8,152	4.2	40,734	2,862	1,627	45.6	1,048	34.8	10,756	14.5	52.5
	1951	3,604	3,427	7,031	2.2	41,289	2,883	1,620	45.3	1,303	44.1	11,508	14.5	57.5
Pocahontas Region	Chesapeake & Ohio 1952	47,403	23,967	71,370	4.6	71,172	4,121	2,315	47.7	1,265	45.4	18,223	17.5	69.4
	1951	50,082	26,469	76,551	4.7	68,021	4,128	2,336	49.1	1,516	58.2	22,769	16.6	79.1
	Norfolk & Western 1952	32,060	7,345	39,405	2.1	70,994	4,213	2,316	47.6	1,152	39.3	22,575	17.1	92.3
	1951	28,467	8,649	37,116	1.7	69,782	4,343	2,398	49.7	1,656	56.6	28,943	16.4	116.3
Southern Region	Atlantic Coast Line 1952	15,452	16,296	31,748	3.0	37,578	2,256	1,076	34.4	850	39.5	4,844	16.7	87.7
	1951	11,893	16,561	28,454	2.2	35,247	2,227	1,043	33.2	883	42.4	4,678	15.9	52.2
	Central of Georgia 1952	2,573	6,032	8,605	5.2	41,433	2,475	1,160	31.2	891	41.2	4,247	16.8	73.2
	1951	1,952	5,727	7,679	5.8	36,013	2,033	957	31.3	1,006	46.0	4,197	17.8	77.5
	Gulf, Mobile & Ohio 1952	4,310	10,401	14,711	3.6	66,922	3,509	1,747	32.7	1,241	52.0	6,650	19.1	128.5
	1951	3,016	12,081	15,097	4.0	60,793	3,438	1,691	31.8	1,144	48.4	5,889	17.7	130.2
	Illinois Central 1952	28,884	27,516	56,400	2.4	43,639	2,598	1,221	33.8	1,033	47.5	8,808	17.0	82.4
	1951	21,353	31,559	52,912	2.6	44,469	2,593	1,220	34.3	1,207	55.4	9,284	17.4	85.8
	Louisville & Nashville 1952	32,380	14,136	46,516	5.2	42,741	2,636	1,340	37.0	837	35.2	8,469	16.2	97.7
	1951	25,199	16,062	41,261	10.3	39,123	2,489	1,284	38.1	1,062	43.3	9,424	15.8	97.6
	Nash., Chatt. & St. Louis 1952	1,591	5,302	6,893	3.5	40,091	2,116	1,031	31.3	953	41.2	6,286	19.0	114.8
	1951	1,280	4,817	6,097	3.9	40,060	2,215	1,079	30.7	1,062	45.8	5,878	18.1	109.7
	Seaboard Air Line 1952	10,543	12,634	23,177	2.6	49,094	2,747	1,277	32.4	1,008	47.8	5,552	18.1	98.7
	1951	9,529	14,163	23,692	2.0	44,092	2,554	1,190	33.0	1,018	48.0	5,675	17.5	71.8
	Southern 1952	15,462	28,605	44,067	3.2	40,972	2,409	1,118	29.1	905	43.4	6,063	17.1	87.5
	1951	12,420	28,311	40,731	3.9	37,476	2,252	1,050	29.4	942	44.6	6,112	16.7	79.9
Northwestern Region	Chicago & North Western 1952	21,020	34,865	55,885	3.7	46,043	3,065	1,326	31.0	656	31.7	4,773	15.7	77.2
	1951	18,216	38,191	56,407	3.7	41,976	2,822	1,265	32.5	739	35.7	5,011	15.8	80.5
	Chicago Great Western 1952	1,615	6,209	7,824	2.4	72,208	4,196	2,025	32.8	1,299	55.5	7,027	17.2	152.8
	1951	1,734	6,968	8,702	2.1	64,197	3,883	1,849	32.0	1,163	50.7	6,511	16.6	174.7
	Chic., Milw., St. P. & Pac. 1952	33,431	35,519	68,950	4.6	48,683	2,913	1,327	32.0	785	38.6	5,053	16.8	89.2
	1951	28,327	40,340	68,667	3.3	44,725	2,732	1,275	33.0	793	37.0	5,000	16.5	87.8
	Chic., St. P., Minn. & Omaha 1952	1,071	8,670	9,741	3.3	31,978	2,284	1,077	32.2	719	31.5	4,194	14.8	79.2
	1951	1,301	9,881	11,182	2.5	29,880	2,271	1,099	35.5	727	30.6	4,659	14.0	85.6
	Duluth, Missabe & Iron Range 1952	14,502	2,936	17,438	2.3	81,429	4,996	3,034	65.0	1,225	37.7	36,902	17.1	102.5
	1951	13,457	2,527	15,984	2.5	83,680	4,901	2,937	61.9	1,319	41.6	36,906	17.8	121.5
	Great Northern 1952	24,953	29,475	54,428	3.0	50,221	3,288	1,681	40.3	1,315	52.5	8,352	15.5	92.8
	1951	21,934	25,075	47,009	2.9	49,057	3,201	1,665	39.7	1,423	54.5	7,397	15.5	84.9
	Minneap., St. P. & S. S. M. 1952	7,173	9,165	16,338	5.3	45,674	2,547	1,256	34.8	1,098	48.3	4,289	18.0	134.8
	1951	5,894	11,854	17,748	5.6	44,041	2,441	1,182	35.2	1,058	48.1	4,229	18.3	134.6
	Northern Pacific 1952	20,631	18,994	39,625	5.0	49,930	2,992	1,365	32.2	1,108	53.1	6,565	16.8	93.3
	1951	18,255	21,842	40,097	5.0	49,188	3,023	1,442	33.2	1,080	46.4	6,335	16.5	83.8
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1952	50,947	34,458	85,405	3.6	59,744	2,789	1,112	26.4	992	56.2	6,516	21.5	118.7
	1951	45,246	32,997	78,243	4.4	54,862	2,774	1,082	26.7	1,134	66.7	7,058	19.9	118.0
	Chic., Burl. & Quincy 1952	19,986	23,619	43,605	3.0	55,948	2,844	1,290	30.4	1,178	57.8	5,926	19.7	97.6
	1951	17,609	25,580	43,189	3.8	53,282	2,953	1,349	32.0	1,322	64.2	6,579	18.1	96.0
	Chic., Rock I. & Pac. 1952	13,873	23,661	37,534	2.9	46,820	2,599	1,159	31.4	978	47.3	4,522	18.1	124.5
	1951	10,563	23,924	34,487	3.4	39,699	2,414	1,109	32.2	1,069	51.9	4,747	16.5	116.1
	Denver & R. G. Wn. 1952	7,140	9,904	17,044	3.0	55,439	3,061	1,387	30.2	1,156	52.9	8,256	18.2	111.9
	1951	7,167	8,018	15,185	3.3	53,431	3,094	1,461	31.6	1,203	52.4	7,196	17.4	92.8
	Southern Pacific 1952	29,834	49,908	79,742	2.8	50,074	3,025	1,215	28.1	1,250	70.3	11,924	16.8	120.6
	1951	25,136	51,944	77,080	2.5	47,522	2,987	1,201	27.8	1,148	64.8	11,179	16.2	112.8
	Union Pacific 1952	30,170	42,899	73,069	2.5	66,882	2,833	1,172	28.5	1,584	86.4	11,291	23.9	137.7
	1951	28,968	37,587	66,555	3.4	63,796	2,961	1,281	29.3	1,656	84.4	11,287	21.9	128.9
	Western Pacific 1952	2,416	4,045	6,461	5.7	69,506	3,207	1,378	26.9	1,844	98.6	10,819	22.0	203.6
	1951	1,656	3,870	5,526	6.9	68,030	3,189	1,493	29.2	2,212	101.4	10,079	21.5	102.4
Southwestern Region	International-Gt. Northern* 1952	1,030	7,302	8,332	2.6	54,601	2,822	1,268	35.2	817	34.3	6,170	19.4	88.4
	1951	676	7,325	8,001	3.2	47,501	2,486	1,206	34.4	1,066	44.6	7,183	19.2	116.1
	Kansas City Southern 1952	1,122	6,394	7,516	5.2	74,582	3,705	1,787	33.0	1,288	55.5	10,838	20.2	153.9
	1951	1,101	6,702	7,803	3.4	68,850	3,626	1,729	32.0	1,235	55.1	10,710	19.2	99.1
	Mo.-Kans.-Texas Lines 1952	3,673	6,238	9,911	7.4	49,055	2,436	1,066	27.7	1,308	69.8	4,157	20.2	127.8
	1951	3,204	7,001	10,205	7.8	45,163	2,521	1,125	29.3	1,510	76.1	4,721	18.0	130.1
	Missouri Pacific* 1952	19,998	16,618	36,616	3.1	55,786	2,639	1,188	30.3	1,270	61.1	6,787	21.3	110.3
	1951	15,121	19,158	34,279	3.7	49,647	2,629	1,205	31.0	1,376	65.2	7,359	19.0	110.2
	Texas & Pacific 1952	2,574	7,224	9,798	3.6	67,885	2,884	1,146	27.7	1,253	71.0	6,519	23.6	142.6
	1951	1,939	7,909	9,848	6.2	57,813	2,772	1,037	27.3	1,299	80.1	6,972	20.9	123.5
	St. Louis-San Francisco 1952	9,361	13,202	22,563	3.3	48,125	2,658	1,184	30.5	1,010	51.1	5,317	18.1	102.9
	1951	8,034	14,810	22,844	3.3	44,830	2,443	1,093	30.6	960	48.9	5,183	18.5	67.6
	St. Louis Southw. Lines 1952	2,101	5,391	7,492	1.8	53,208	2,536	1,134	26.8	1,668	82.4	7,750	21.0	124.7
	1951	1,549	5,249	6,798	1.7	47,237	2,554	1,142	27.6	1,878	95.0	8,399	18.5	121.7
	Texas & New Orleans 1952	5,551	18,678	24,229	2.7	48,820	2,548	1,099	29.8	1,195	62.2	6,292	19.3	108.6
	1951	3,754	19,913	23,667	2.5	43,194	2,342	1,006	29.0	1,215	63.6	6,147	18.6	105.2

*Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Current Publications

BOOKS

Sixty-Fourth Annual Report on Statistics of Railways in the United States for the Year Ended December 31, 1950, prepared by Bureau of Transport Economics and Statistics, Interstate Commerce Commission. 617 pages. Government Printing Office, Washington 25, D. C. $3.75.

Commonly referred to as the "Blue Book," this report contains the most comprehensive statistics available on steam railways. It includes statistics on roadway and track, equipment, traffic, operation, employees, fuel, accidents, revenues, expenses and taxes, income and earned surplus, dividends and interest, balance sheet, investment in road and equipment, capitalization, and receiverships and trusteeships. In addition it contains abstracts of reports of individual steam railways, and selected data for the Pullman Company, the Railway Express Agency, electric railways, carriers by water, oil pipe lines, motor carriers, freight forwarders, and private car owners subject to the Interstate Commerce Act.

The Beauty of Old Trains, by Hamilton Ellis. 147 pages, illustrations. George Allen & Unwin, Ltd., London, England. Available in this country from the Macmillan Company, 60 Fifth ave., New York 11. $4.50.

Old steam trains have a peculiar beauty, just like old ships and old houses. Designers belonging to the English-speaking world in particular long gave devoted attention, not only to producing efficient machines, but to their appearance. The British and North American schools evolved strict esthetic codes of their own, one or the other of which influenced practice all over the world. In the early days, classical architectural styles were studied and followed, but by the mid-nineteenth century designers had achieved pure styles peculiar to the railway engine alone. Coach building tradition, however, has been continuous through three centuries. This book sets forth developments during the Victorian era and into our time, with photographs, drawings and the author's paintings.

Directory of Railway Officials & Year Book, 1952-1953, compiled from official sources under the director of the editor of the Railway Gazette. 558 pages. Tothill Press, Ltd., 33 Tothill st., Westminster, S.W.1, London, England. 40 shillings.

Fundamentally there has been no change in the method of presentation in this new edition. All entries continue to be divided into one of two main divisions, namely, British Commonwealth (regardless of dominion or colonial status) and foreign; each of these sections is again sub-divided geographically into continents and countries. Information shown for most entries includes names and addresses of officers, equipment owned, mileage and gage. For larger railroads some historical, general and financial information is also shown. Once again it has proved impossible to secure reliable information from most of the "iron curtain" countries of eastern Europe. The reorganization of the railways of India was made too late for full details to be secured, although both the general structure of the new regional railways, and also the names of the principal officers have been secured. New entries include the two government railways in Nepal; particulars of the Pan American Railway Congress Association; considerably amplified details of the world's standardization societies; and substantially revised details of the railways in Germany. The usual statistical and other year book information, railway chronology and railway bibliography are included. There are three indexes: an index to countries; a general index, including all references to railways and statistical and other information; and a comprehensive personal index of railway officials.

The Train That Never Came Back and Other Railroad Stories, by Freeman H. Hubbard. 127 pages, illustrations. Whittlesey House, McGraw-Hill Book Company, 330 W. 42nd st., New York 18. $2.25.

Children from 8 to 12 will find in these amazing incidents that really happened all the thrill and drama of American railroading—a train that never came back, Casey Jones' last ride, the true story of John Henry, the phantom brakeman of Raton pass, and others. Kurt Wiese has done the illustrations.

PAMPHLETS

Automobile Facts and Figures, 32nd edition, 1952. 80 pages. Automobile Manufacturers Association, New Center bldg., Detroit 2, Mich. Free.

The A.M.A.'s annual compilation of statistics on the automobile and motor carrier industries. Some of the statistics are complete through 1951; others through 1950.

A Catalog of Personnel Materials. 32 pages. Science Research Associates, 57 W. Grand ave., Chicago 10. Free.

A special catalog of personnel tests and employee relations material, developed for business and industrial use. The materials are designed to help select better employees, improve operating efficiency, increase effectiveness of supervision, choose employees for promotion, reduce employee turnover, prevent accidents on the job, and increase employee performance. The catalog contains five categories of materials: general personnel tests, tests for shop and factory personnel, tests for clerical and office personnel, training devices, and books and booklets.

TRADE PUBLICATION

How To Operate A Lift Truck. 24 pages, illustrations. Hyster Company, 2902 N. E. Clackamas st., Portland 8, Ore., or any Hyster dealer. Free.

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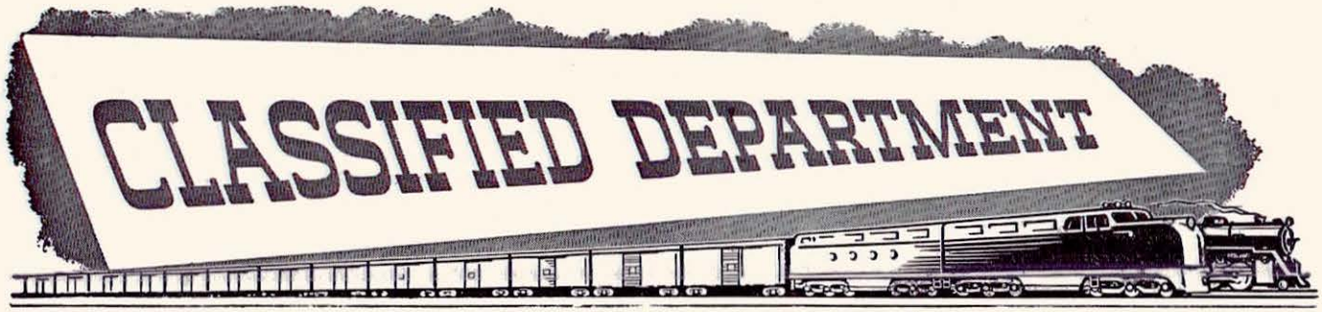

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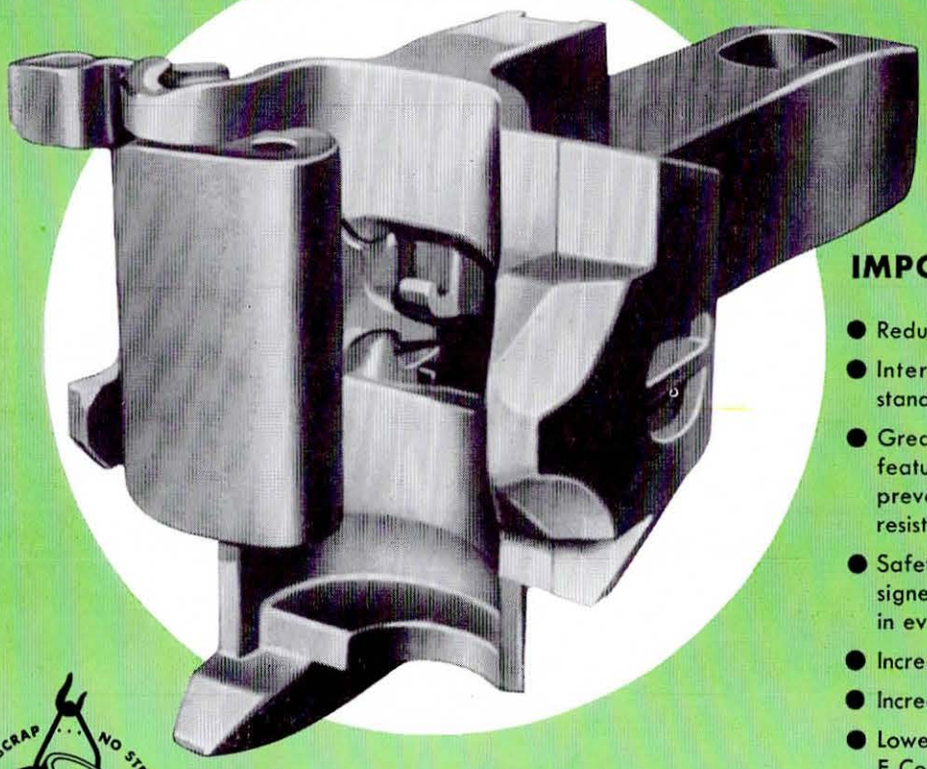

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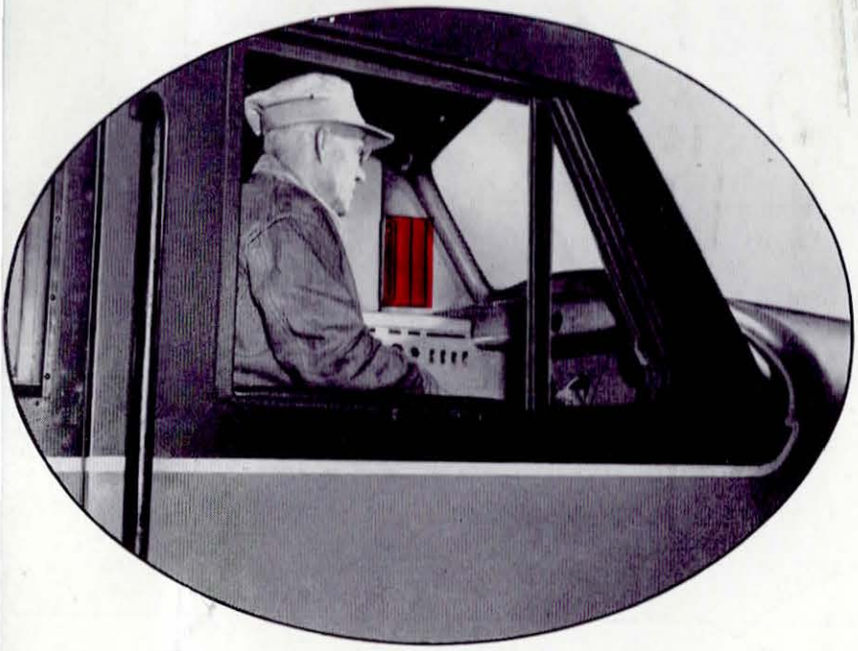

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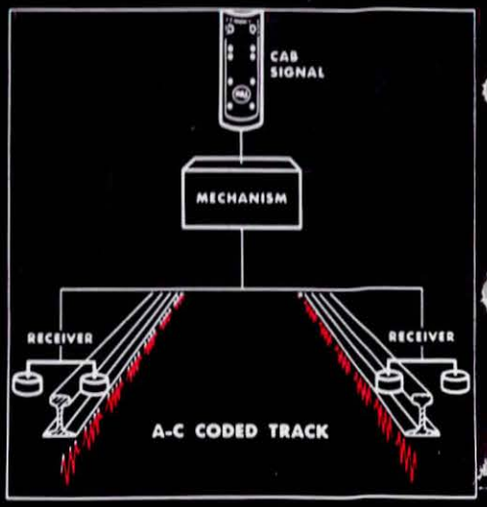

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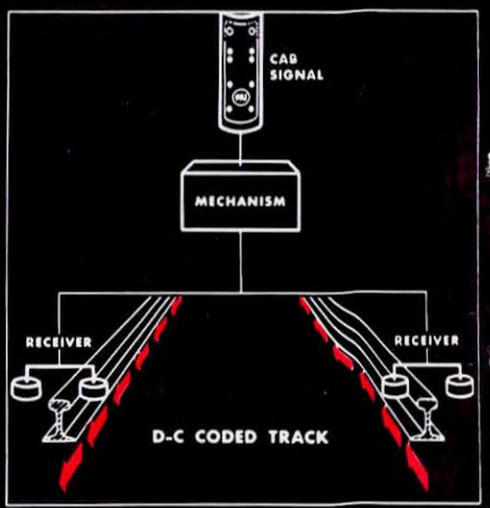

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